PRAXIS OF LOGIC.

Entered at Stationers' Hall.

A

PRAXIS

OF

LOGIC,

FOR THE

Use of Schools.

BY JOHN COLLARD.

Quidquid præcipies, esto brevis; ut cito dicta
Percipiant animi dociles, teneantque fideles.
Omne supervacuum pleno de pectore manat.

HOR. de ART. POET.

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MVSEVM
BRITAN
NICVM

PREFACE.

THERE is no branch of ancient science that has received lefs improvement from modern writers, than the praxis of logic. Locke, Hartley, Reid and several others, have ably investigated the theory of the human understanding and the doctrine of ideas, but these subjects are properly ontological, or metaphysical, and not within the province of logic.

On the subject of reasoning, exclusively, I have never seen an original sentence. Not one has dared to deviate from the system of Aristotle; and many parts of that system, sufficiently obscure of itself, have been rendered totally unintelligible by the verbose annotations of its learned expositors.

The advantage of systematical reasoning has been generally acknowledged; but, it has been demanded, how can it be taught? This, it must be confefsed, has been a very formidable difficulty; but, wherein has the difficulty consisted? The answer is shortly this, no system has yet appeared which is built upon the structure of language. Logic should not consist of a number of theoretical rules, to which language is to be made subservient, but, like grammar, it should em-

brace the characteristics which language itself has assumed. It is of little use to invent methodical arrangements of words, or propositions, however ingeniously contrived, if they do not correspond with common practice. General observations, also, without exemplification, afford but little instruction.

Syllogistical reasoning was a shield, under which learned ignorance frequently concealed itself, and imposed upon others; it was, for several ages, a refuge for affectation, when defeated by common sense, a laborious puzzle in the seminaries of learning, and a stumblingblock to the enquirer after truth. It has, at last, however, fallen into disrepute, not like ancient astronomy, by its inefficacy, in comparison with a more rational theory, but it has sunk, with all the barbarous jargon to which it has given birth, beneath the weight of its own imperfections.

Mr. Locke's authority is quoted for the condemnation of the syllogism; but Mr. Locke, high as he must be esteemed for his Eſsay on the Understanding, has not, I think, succeeded in shewing its *comparative* inefficacy. He says, that "The syllogism is not the only way of reasoning," that "we reason *best* and *clearest*, when we only observe the connexion of proof, without reducing our thoughts to the rules of syllogism;" and that "many men reason well who know not how to make a syllogism." This is very true; but

Mr. Locke has given no example of reasoning in this familiar way: no *formula*, comprehending all the parts of what he calls *native rustic reason*, in comparison with which the syllogism stands condemned. Can it be fairly demonstrated, that "we reason *best* and *clearest*," one way in preference to another, without giving a specific example of both? I know of no ideas signified by the terms *better* and *worse*, but those which arise from the comparison of different objects, of which we have equally a clear conception.

Mr. Locke has, indeed, offered an arrangement of the syllogistical matter, which he thinks "a more simple and natural disposition, than the perplexed repetition and jumble of four or five syllogisms." But, I will venture to affirm, that neither the *moods* and *figures* of Aristotle, nor the *arrangement* of Mr. Locke, can be of any considerable importance in the art of reasoning. The syllogism, regulated by the doctrine of *mood* and *figure*, is applicable only to a very inferior species of reasoning: there are modes of reasoning, a thousand times more common, which cannot be reduced to the rules of that system.*

Mr. Locke, indeed, attempts not, in his whole treatise, to enter into the analysis of reasoning; and, section 2d, chapter 17, volume the 2d, written profefs-

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* See Note, pages 123, 124.

edly to explain "wherein reasoning consists," is one of the most general and obscure paſsages in all that clebrated work. Nay, so little has the nature of familiar reasoning been understood, even by our first modern logicians, that Dr. Watts, in his "Logic," page 167, and Mr. Duncan, in his "Elements of Logic," page 173, have mistaken, for what they call *causal* and *conditional propositions*, some of the most common and obvious forms of reasoning in familiar language.*

No adept, in the study of logic, has attempted to discover what sort of reasoning is practiced in familiar conversation; but, having made themselves acquainted with the doctrine of *quality* and *quantity*, studied the mechanical arrangements of *mood* and *figure*, and, having learnt the general rules and numerous exceptions of Aristotle, they conceive, that they have reached the summit of the art. But, let me ask those who have attended lectures on logic delivered at the universities, whether they learnt any thing there which could aſsist them in the practical reasoning of common life? Nay, will the lecturers themselves pretend, that they can discover every act of reasoning, as it occurs in a printed work? The negative, I think, will be pretty manifest, when we recur to the acts of *reasoning*, stated as *propositions*, by Watts and Duncan.

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* See Eſsentials of Logic, page 116.

So much, indeed, has this branch of learning been neglected, that the most intelligent men have been contented to exercise their reasoning faculties by rote, without knowing when they reasoned, or even attempting to distinguish the combinations of which a discourse is composed. Can a man be said to have a competent knowledge of a compound whole, who is unacquainted with the variety of its component parts? If it be necesſary to understand the difference between one word and another, it is also neceſsary to understand the difference between one propositional combination and another; because, words are the parts of which propositions are composed, and propositions are the parts of which a discourse is composed. We must know the power of words, before we can understand the structure of a proposition; and we must be acquainted with the doctrine of propositions, before we can properly understand the structure of reasoning, and be competent to the regular analysis of a discourse.

If the reasoning faculty be the principal attribute which distinguishes man from other animals, it is, surely, an object worthy of cultivation. What! will men suffer that faculty, which must principally direct them in their enquiries after all other things, to wander in dark irregularity? Mr. Locke, himself, with whom I perfectly agree, that "the syllogism finds out no

proof, nor makes new discoveries," says, "I doubt not, nevertheleſs, but there are ways to be found to aſsist our reason in this most useful part: "But," he continues, "I do not pretend to have found or discovered here any of those right helps of art:" and, after some further observation, he concludes; "but this is plain, that syllogism, and the logic now in use, can be none of those means."

In this point, also, I agree with Mr. Locke, and have preserved nothing of the old system, in the following tract, but the form of a simple syllogism, in the first figure. Nor have I preserved this for any particular efficacy to be ascribed to this order of arrangement, in preference to any other that might have been adopted, but because it is a form already established, and that it comprises all the component parts which are either expreſsed, or implied in any act of reasoning. Moreover, I have, in general, adopted the old terms to distinguish the parts of reasoning and the members of a proposition, because they are already known to many, and a change might have caused some perplexity.

I have, as it were, been compelled to preserve the syllogism, because there is no other specific form of reasoning, distinguished by any author, that I have ever seen; and, as my design was to examine all the forms of familiar reasoning, and to compare them with one determinate standard, I had no choice. Now, though

the syllogism does not exhibit a complete analysis, yet, it comprehends all those eſsential parts which must be expreſsed, or implied in every act of reasoning; and, I employ it, first, as a subject on which to exhibit the analysis, and, after a proper distinction of the reasoning members, I have endeavoured to shew the analogy which every familiar mode of reasoning bears to that determinate standard.

The elements of this system were first published in 1796, in a work entitled 'The Eſsentials of Logic,' which received the approbation of many characters celebrated for their learning and intelligence. That publication introduced me to a correspondence with some gentlemen of literary eminence, at whose request I was induced to attempt the formation of this praxis, and to whom I am greatly obliged for many useful hints. The Eſsentials of Logic comprehend the principles of this system at large, compared with the various forms of syllogistical reasoning, including the doctrine of ideas, mode, substance, definition, &c. This piece contains a reduction of those principles to practice; or, in other words, a practical application of that theory to familiar language. In this piece, which was written purposely for the use of schools, I have entirely omitted the doctrine of ideas, mode, substance and de-

finition, because I am convinced, that boys should immediately exercise on the praxis, and that those subjects, which depend more upon the powers of reflection, will be introduced with greater advantage in the practical progress. For the vagrant thoughts of youth, which are for ever making flighty excursions from the consideration of any fixed subject, can never be sufficiently confined, in the first instance, to contemplate, steadily, the subtile objects of metaphysical abstraction.

If, in developing this system, I had pursued what is called the synthetic method; that is, to have begun with first principles, adding, gradually, a portion, till the fabric had been completed, I must have infracted, with some violence, that sort of concatenation which is most agreeable to the view of the mind. In the synthetic method, (as the doctrines of ideas, definition, &c. are excluded) the first materials which would present themselves are the parts of a proposition. But the mind is too impatient to wait the slow progress of such a formal procedure, and, if left to pursue its own inclination, would promptly demand at once, what is logic?

This, then, is the mode in which I have begun; and, in the whole progress, as far as it was practicable, I have so contrived it, that, the answer to one question shall invite another question. This I have done with a view of displaying an obvious dependency of the respective parts, and, as far as the nature of the subject

would admit, of keeping curiosity alive. There is not one rule laid down without ample exemplification; and this is done, in most instances, by quotations from eminent authors.

The praxis, here offered, is not a theoretical fabric, depending upon a few unexplained axioms, but a practical system built upon the language of the day; not illustrated by fabricated examples, but by the characteristics which language itself has assumed, and needs no other explanation than a distinct exhibition of those characteristics. It may be proper, however, to remark, that the detail of this system is necessarily so concatenated, that the knowledge of every preceding, is absolutely necessary to the comprehension of almost every subsequent period. Thus, the reader must not expect that he can understand any detached part, without having regularly proceeded from the beginning.

I have spared no pains to render the analysis obvious, neither in the *modus operandi*, nor in remarks to render the characteristics of each combination perspicuous. Some, perhaps, may think, that in this latter instance, I have been too minute; but, let it be recollected, that this work, which, I believe, comprehends all the propositional and rational combinations of our language, is still, (exclusive of the exercises introduced for the purpose of shewing how youths may be taught to analyze language), shorter than any treatise that has ever ap-

peared on the subject. At first, indeed, it formed a mafs considerably voluminous, but, in the revision, I have reduced it to its present dimension. A farther diminution would, perhaps, have rendered it obscure.

Whatever may be the imperfections and inaccuracies of this work, I beg leave to declare, that they are not to be attributed to haste, or to idlenefs; to confidence, or want of enquiry. No, let them rather be ascribed to the peculiar nature of a subject, wherein the mind wanders, as it were, in a trackleſs wilderneſs, interspersed with labyrinths whose extent and direction are not easily measured. And, let me inform the reader, also, that this work was not composed in the peaceable tranquillity of retirement, but under such untoward circumstances, that the mind was subject to continual interruption and vexatious distraction. I have little doubt, however, that this piece will, at some future period, find its way into the schools, and, though critics should at present condemn, what they have either no patience or no inclination to examine, I feel myself happy in contemplating, that, after I am mouldered to dust, it may help " to afsist our reason, in this most useful part."

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A

PRAXIS OF LOGIC.

CHAPTER I.

B. WHAT is logic?

C. The art of reasoning.

B. What is reasoning?

C. An act of reasoning is a proposition with a reason why its subject and predicate are declared agreeable with, or repugnant to, each other.

B. What is a proposition?

C. A proposition is, generally, a short sentence wherein one word is affirmed to be agreeable with, or repugnant to, another word; as,

Man *is* mortal.

Now, the three terms of this example are thus denominated; *man* is called the *subject*, *is*. the *copula*, and *mortal*, the *predicate*.

Thus the term *mortal* is declared to belong to the term *man*, and this agreement is denoted by the copula, *is*.

B. Pray give an example of a proposition wherein two words are declared repugnant to each other.

C. Learning *is not* hereditary.

Here *learning* is the subject, *is not*, the copula, and *hereditary*, the predicate; and thus the term hereditary, forming the predicate, is declared repugnant to the term learning, forming the subject of the proposition.

B. Do these two general heads comprehend all propositions which occur in language?

C. Yes; all propositions which can posſibly occur, must be either congenial or repugnant; that is to say, the subject and predicate of every proposition must be either affirmed agreeable with, or repugnant to, each other.

B. But, though every proposition may be comprehended in these two general claſses, I presume there must be some special characteristics, distinguishing propositions in each of these claſses.

C. Yes; and these, in old logic, were very numerous; and a great source of perplexity to the learner; but, according to this system, very few

subdivisions are neceſsary. I shall now offer some examples, to render the knowledge of these general claſses familiar, and introduce the more subordinate distinctions as we proceed.

Examples of Simple Congenial Propositions.

Modesty *is* **amiable.**

Cæsar *was* **a Roman.**

Virtue *will be* **rewarded.**

Genius *has been* **neglected.**

Power *had been* **abused.**

Opportunity *will have been* **lost.**

B. These six examples are what you call congenial propositions,* that is, propositions in which the predicate is declared to belong to the subject.

C. Yes; and, in each example, the copula is a different tense of the verb *to be.*

B. Pray give an example, in each tense, wherein a repugnance between the subject and the predicate is exhibited.

Examples of Simple Repugnant Propositions.

C. Stones *are not* **animated.**

The druids *were not* **Christians.**

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* See Eſsentials of Logic, pages 61 and 62.

Idlers *will not be* learned.

The sciences *have not been* neglected.

The Georgium Sidus *had not been* discovered.

Benevolence *will not have been* forgotten.

B. From this it would appear that some tense of the verb *to be* always forms the copula.

C. The verb *to be* always exhibits an agreement between a subject and a predicate, but it is very frequently implied in the predicate, and not expreſsed; as,

Philosophers study,

that is,

Philosophers *are* studying.

Cæsar fought,

that is,

Cæsar *was* fighting.

Difficulties *will* occur,

that is,

Difficulties *will be* occurring.

B. Pray does the particle *not*, which accompanies the copula, always shew the repugnance between the subject and the predicate?

C. No; the repugnance is signified by various particles; as,

No stones *are* animated.

No druids *were* Christians.

Thus the particle *no* signifying *not one*, is commonly used when the subject comprehends a number, and signifies, that the predicate is not applicable to any one of the clafs which the subject represents.

B. What other modes are there of exhibiting a repugnance between a subject and a predicate?

C. When some few of an indefinite clafs are reserved from the application of a repugnance, the particle *none* is used; as,

None, but believers, *are* religious,

that is to say, *not one* of the whole clafs of mankind, *be-out* * or except believers, is *religious*. We say also, *None are perfect*; that is,

Not [or *No*] one *is* perfect.

And,

There *is not* one perfect:

which is the same as saying,

A perfect one *is not* existent.

In this sense also we frequently use the term *nothing*; as, *Nothing is eternal*; that is,

No [or *Not*] one thing *is* eternal.

And,

There *is not* one thing eternal,

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* See Efsentials of Logic, page 112.

that is,

One thing eternal *is not* existent.

Neither, *never*, *nor*, *at no time*, *less*, *without*, &c. are sometimes used as repugnant signs, but they present no difficulty, and it will appear as we proceed, that the use of these signs is not of sufficient importance in the art of reasoning to deserve particular exemplification.

Sometimes the negative particle enters into composition with the predicate; and then I call the proposition congenial; as,

Men *are unhappy.*

Words *are incompetent.*

Books *are imperfect.*

Language *is irregular.**

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* Instances like the four preceding, wherein the negative particle enters into actual composition with the predicate, and becomes part of the term, cannot be considered as *repugnant* in a proposisional sense. Thus, if I say

Man *is not* happy,

I affirm a complete repugnance between the subject *man*, and the predicate *happy*; but, if a negative particle become a part of the predicate, it forms a new attribute of an opposite meaning; and when I affirm, that

Man *is* unhappy,

the subject and predicate are completely congenial with each other. Nor is it my business, as a reasoner, to enter into the etymology of the

B. I observe that your examples are all stated in what grammarians call the indicative mood.

C. Yes; and, in ancient logic, it is said, that no other mood can be employed in reasoning; but propositions may be stated in all the grammatical moods except the infinitive, and may be so employed in reasoning, as will appear in the progress of this work. In the imperative, we command an agreement or repugnance between a subject and a predicate; as,

Let instruction *be* received.

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term *unhappy*; it is sufficient for my purpose, that I should understand its true meaning. The taking into their consideration what is called the *positive* and *negative* meaning of words, as forming the subjects and predicates of propositions, has led many writers on old logic into such a perplexity, that they have been unable to determine to which class many propositions should be referred; as may be seen in Doctor Watts's Logic, page 157. This fruitless enquiry into the composition of words, has also been treated of at large, in old logic, under the title of *positive* and *negative* terms; but, after puzzling themselves and their readers at a considerable length, such writers are obliged to demolish the structure they have erected, as Dr. Watts has done, p. 52, of his Logic, in the following words:—"But, so unhappily are our "words and ideas linked together, that we can never know which are "*positive ideas*, and which are *negative*, by the word which is used to "express them."—The Doctor says the *negative* terms *im*mortal, *in*demnify, *in*solent, and *in*finite, convey, perhaps, *positive ideas*; and that some positive terms convey negative ideas, as, *blind*, a *positive term*, signifies a *negation of sight*, and *dead*, a *negation of life*.—But it will appear, that such perplexing *minutia*, even if an exact line of demarkation could be drawn, is not essential in this system.

B. You say that propositions may be expreſsed in all the grammatical moods except the infinitive; pray give some examples in the other three moods commonly noticed by grammarians.

C. It will be neceſsary, then, that I should introduce another claſs of propositions. Those we have already noticed are called pure, because the agreement or repugnance between the subjects and predicates is exhibited by a positive copula. The copulas of the claſs of propositions I am about to exemplify are, in English, influenced by certain terms, such as *can*, *could*, *may*, *might*, *would*, *must*, or *should*. Now, when any of these auxiliaries affect the copula, I call the proposition *modal*: thus, if I say,

Learning *is* acquired,

the proposition is pure; but, if I say,

Learning *can be* acquired,

the proposition is modal. In a modal proposition, we do not exhibit an *actual* agreement between a subject and a predicate, but only the *power*, *will*, *chance*, *liberty*, *neceſsity*, or *poſsibility* of an agreement or repugnance; as,

Examples of Simple Modal Propositions.

Men *can be* sincere.

Death *cannot be* avoided.

Cæsar *could be* generous.

Cromwell *could not be* moderate.

Industry *may be* rewarded.

Endeavours *may not be* successful.

The memory *might be* improved.

The richest *might not be* the wisest.

Hypocricy *would be* suspected.

Dishonesty *would not be* honourable.

Subordination *must be* maintained.

Intemperance *must not be* indulged.

Virtue *ought to be* rewarded.

Poverty *ought not to be* despised.

Morality *should be* observed.

Folly *should not be* applauded.

B. Are all propositions either pure or modal?

C. Yes; language consists of nothing more than a succeſsion of propositions, declaring the agreement or repugnance between certain subjects and predicates, linked together, as it were, by a claſs of words called particles,* and every proposition must be either pure or modal.

B. Pray how do you claſs those propositions expreſsed in the form of an interrogation?

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* See Ἐπεα Πτεροεντα, or Diversions of Purley.

C. These also are pure or modal. In a pure interrogatory, we ask whether a predicate be actually applicable or repugnant to a subject; as,

Is learning honourable?

In a modal interrogatory, we demand whether an agreement or repugnance between the subject and the predicate be within the scale of *power*, *chance*, *poſsibility*, or *neceſsity*; as,

May, *might*, *can*, or *must* injuries *be* forgiven?

B. If language be nothing more than a series of pure and modal propositions, connected by certain words, called particles, how do you claſs those words and fragments distinguished by a note of admiration or exclamation?

C. Admiration or exclamation, marked thus !, is said to be *the voice of nature agitated*; but, still, where the matter does not consist of unintelligible interjections, it will represent pure or modal propositions, either expreſsed or implied; as,

"*Hark! hark! what a piteous groan!*"

Here, hark! hark! are two propositions in the imperative mood, the meaning of which may be fully expreſsed thus,

Be thou attentive.

And the words, *what a piteous groan*, signify,

How piteous *is* that groan!

There are peculiarities to be observed in ours, as well as in every other language; as, *There is something*; that is,

Something *is* existent.

We say also, *it freezes*,—*it rains*; which implies,

Frost *is* prevaling.

Rain *is* falling.

In fact, by whatever mode an affirmation be signified, three propositional parts must be implied, and means may be found to expreſs them distinctly; this, indeed, must be done, to effect, with any tolerable propriety, what I call a propositional analysis.

B. I have observed, that in most of the preceding examples, a single word forms each subject and each predicate: do not the subjects and predicates frequently consist of a number of words?

C. Yes; but the preceding examples are purposely formed to shew the parts of a proposition in the most simple and obvious manner; that each member, namely, the subject, copula, and predicate, may be fairly and distinctly exhibited, without the least complication: it frequently

happens, however, that the ideas subjected and predicated are represented by a number of words, and the copula, as I have before observed, is included in the predicate; as,

A youth studious and attentive makes great progress in a short time.

Now here the words, *a youth studious and attentive*, compose the subject; the terms *studious and attentive* only explain the qualities of the youth to be subjected; and the verb *makes*, implies *is making*; and thus the copula is comprehended. The word *great* signifies the degree of progress, and the words *in a short time*, denote the celerity with which that progress will be made, and are thus evidently employed to explain the predicate.

B. Does it ever happen that one predicate is declared to be agreeable with, or repugnant to, more than one subject, in one proposition?

C. Yes; and then the proposition is said to be compound; as,

Fire and water *are* useful.

Here, *useful*, the predicate, is applied to two distinct subjects, namely, *fire*, and *water*; and the proposition is called compound, because it

may be reduced into two distinct propositions; as,

Fire *is* useful.

Water *is* useful.

B. Are there ever more than two distinct subjects, in one proposition, to which a single predicate is declared agreeable or repugnant?

C. Yes, very often; as,

Convenient magnitude, insular situation, mineral productions, and temperature of climate, *are* eminently advantageous to Great-Britain.

Now, here are four distinct subjects, to each of which the predicate is separately applicable, and, of course, the example may be reduced into four distinct propositions.

B. Are there propositions to be found, wherein several predicates are declared applicable to one or more subjects?

C. Yes; as,

"Ulyſses *was* wiſe, eloquent, cautious, and intrepid."

Here are four predicates applicable to one subject, and the example may be reduced into four simple propositions.

B. Pray give an example wherein the subject

and predicate are both composed of several distinct parts.

C. Gold, silver, and copper *are* ponderous, fusible, and ductile.

B. Are all propositions ranged in the order in which you have stated the preceding examples?

C. No; a proposition is confined to no particular order of arrangement; but may be varied according to the style of the writer or speaker; as,

" *Equally dangerous and equally detestable are the cruelties often exercised in private families, under the venerable sanction of parental authority.*"

Rambler, No. cxlix.

Now, here the predicate has the first place, but the language may be transposed, and distinguished thus,

The cruelties often exercised in private families, under the venerable sanction of parental authority, *are* equally dangerous and equally detestable.

Again,

In science there *are* many technical terms.

Thus, by the effect of the word *there*, which, in this sense, always means *existent*, the predicate is removed to the first place, but the language may be transposed thus,

Many technical terms *are* existent in science.

The mode of expreſsion in which all the preceding propositions are stated, whether the predicate has the first or last place, I call the *common*.

B. Are there any other modes of expreſsion which you mean to notice?

C. Yes; the next I call the *mode of single substitution*, of which the following is an example:

IT is necesſary to pay strict attention to instruction.

Now, here the real subject, *to pay strict attention to instruction*, is represented by the pronoun *it*, printed in Italic capitals: to demonstrate this, we may discard the substitute *it*, and afsume the real subject in its proper place, thus,

To pay strict attention to instruction *is* necesſary.

This I call the *mode of single substitution*, and its characteristic is, that a single pronoun is, or may be substituted for the member (which is commonly infinitive,) composing the real subject.

B. Do propositions, stated in what you call the mode of single substitution, occur frequently?

C. Very frequently: the following are some additional examples:

IT is a duty to expreſs one's gratitude for past favours.

IT is a desirable thing to see a youth modest and respectful.

Here it will be observed, that the subject is compound, for *it is a desirable thing to see a youth modest*, and *it is a desirable thing to see a youth respectful.*

B. Is there any difficulty attending that mode of expreſsion which you call single substitution?

C. None; it is generally more simple than any other mode; as,

IT is **pleasant** to communicate good news.

IT is **fortunate** to have an early education.

IT is **a dreadful thing for a person endued with exquisite sensibility,** to struggle with sickneſs, poverty, and old age.

In the preceding example there are three subjects, and the proposition is compound; for, to struggle with either is *dreadful.*

"*IT is* **scarcely to be imagined** how soon the mind sinks to a level with the condition."

Rambler, No. cxxxiii.

Here the real subject is not an infinitive member.—Again,

"*IT is not* **commonly observed** how much, even of actions, considered as particularly subject to choice, is to be attributed to accident, or some cause out of our own power, by whatever name it be distinguished."

Rambler, No. clxxxiv.

B. Is not the predicate sometimes compound in the mode of single substitution?

C. Yes; as,

> *IT is* **mean, cowardly,** and **vicious** to attempt the seduction of unprotected innocence from the paths of virtue.

Sometimes, indeed, the substitute is omitted, and the real subject is stated in its proper place, thus,

> " To close tedious deliberations with hasty resolves, and, after long consultations with reason, to refer the question to caprice, *is* **by no means peculiar to the essayist.**" *Rambler, No.* clxxxiv.

But still as the substitute *it* may represent the subject, thus,

> *IT is* **by no means peculiar to the essayist** to close tedious deliberations with hasty resolves, *&c.*,

I consider this proposition as expressed in the mode of single substitution.

Sometimes, in the mode of single substitution, the substitute and copula will not have the first place, but will be found between the members of the predicate, thus,

> " **To a mind thus withdrawn from common objects,** *IT is* **more eligible** to repose on the prudence of another, than to be exposed every moment to slight interruptions." *Rambler, No.* clxii.

But the matter may be arranged in the usual way, thus,

> "*IT is* more eligible to a mind thus withdrawn from common objects, to repose on the prudence of another, than to be exposed every moment to slight interruptions."

When the pronoun *it*, forming the subject of a proposition, is a substitute for the word *time*, in the following manner, the example will be in the common mode of expreſsion; as,

> "*IT* [that is, *the time*] *is* long before we are convinced of the ſmall proportion which every individual bears to the collective body of mankind; or, learn how few can be intereſted in the fortune of a ſingle man; how little vacancy is left in the world for any new object of attention; to how ſmall extent the brighteſt blaze of merit can be ſpread amidſt the miſt of buſineſs and of folly; and how ſoon it is clouded by the intervention of other novelties." *Rambler, No.* cxlvi.

Other examples of propoſitions expreſsed in the mode of ſingle ſubſtitution, may be found in

No. 127.—No. 137.—No. 152.—No. 183.—No. 188.—No. 193. &c. of the Rambler.*

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* I prefer this work, not only because it contains the moſt accurate examples of extenſive reaſoning I have ever ſeen, but becauſe the *copia verborum* and variety of ſtyle diſplayed by Doctor Johnſon are not to be equalled, perhaps, in the Engliſh language.

B. What is the next distinction you propose to notice?

C. The mode of *double substitution*; of which the following is an example:

IT is said *THAT* [the moon *is* inhabited.]

Here it will be observed, that there are two propositions, the latter of which, consisting of the words *the moon is inhabited*, standing between crotchets, is, in fact, both the subject and a part of the predicate of the first, and is represented both by *it* and *that*, printed in Italic capitals; as,

IT is said.

or,

THAT is said.

What is said?

THAT,

The moon *is* inhabited, *is* said.

Thus it will appear, that the second proposition is conceived in the mind, and first represented by the pronoun *it*, and is afterwards again represented by the relative *that*. The words *it* and *that*, printed in Italic capitals, I call the *substitutes*; the first proposition I call the *preponent*; and the proposition represented by *it* and *that*, consisting of

the words *the moon is inhabited*, I call the *principal*. This kind of combination I call the *mode of double substitution*: it is very common in language, and its structure ought to be carefully attended to.

B. Pray give some further examples.

> *IT was* a horrible notion of the druids, *THAT* [human sacrifices *would* appease the vengeance of God.]

In this example the proposition, forming the principal, is modal; it is represented by each of the substitutes *it* and *that*, and declared applicable to the preponent *a horrible notion*.

Again,

> "*IT is* only from the various essays of experimental industry, and the vague excursions of minds sent out upon enquiry, *THAT* [any advancement of knowledge *can be* expected.] *Rambler*, *No.* clxxx.

B. Do propositions, stated in the mode of double substitution, ever occur in succession?

C. Yes, very frequently; as,

> PREPONENT.—*IT is* said *THAT*
>
> PRINCIPAL.—The moon *is* inhabited,

but,

> PREP.—*IT cannot be* proved *THAT*
>
> PRIN.—A living being exists on that planet.

The preceding sentence, though stated in four lines to shew each proposition distinctly, affords two examples, in the mode of double substitution, linked together by the particle *but*; and, in each example, the whole of that proposition which I call the principal is subjected and predicated, as appears by the situation of its substitutes in Italic capitals.

Sometimes the second substitute is omitted; but if a complete proposition be subjected and predicated, I still consider the example to be in the mode of double subitition; as,

IT is said, [Peter denied Christ.]

Now, here the substitute *that* is omitted before the principal, but it would be better expreſsed thus,

IT is said *THAT* [Peter denied Christ.]

If, however, a short preponent be placed parenthetically between the subject and predicate of the principal, then the second substitute may be elegantly omitted; as,

Peter (*IT is* said) denied Christ.

Luxury (*IT is* thought) *has been* more destructive than the sword.

Sometimes, in the mode of double substitution, the substitute *it* is omitted, and the *principal* will stand parenthetically between the members of the preponent, thus,

" *THAT* (letters *should be* written with strict conformity to nature) *is* true. *Rambler*, *No.* clii.

But the order of the language may be changed, and the other substitute inserted, thus,

IT is true *THAT* [letters *should be* written with strict conformity to nature.]

Sometimes, indeed, the preponent will precede the principal, and both the substitutes will be omitted, as,

" The fact *is* [men *will* incline to their own interest."]

But one or both substitutes may be inserted, thus,

The fact *is THAT* [men *will* incline to their own interest.]

or,

IT is a fact *THAT* [men will incline to their own interest.]

For similar examples, see Period 1, Paragraph 2, No. cxxxviii. and Period 1, Paragraph 9, No. cxviii. of the Rambler.

Sometimes a collection of propositions will enter into the composition of one *principal*, which will form, by its substitutes, the subject, and a part of the predicate of one *preponent* ; as,

PREPONENT.—" *IT might be* expected *THAT*

PRINCIPAL.

No man *should* suffer his heart to be inflamed but by injuries;

THAT

None *should* busy himself in contesting the pretensions of another, but when some right of his own was involved in the question;

THAT at least

Hostilities, commenced without cause, *should* quickly cease;

THAT

The armies of malignity *should* soon disperse, when no common interest could be found to hold them together;

And, *THAT*

The attack upon a rising character *should be* left to those who had something to hope or fear from the event." *Rambler*, *No.* cxliv.

Now, in this example, the *preponent* is expressed in the first line, and all that follows, consisting of five propositions, is employed in the composition of the *principal*. This compound principal is collectively conceived in the mind, and represented first by the pronoun *it*, at the beginning of the

preponent, and then by the substitute *that*, at the conclusion of the preponent. The substitute *that* is also repeated before each of the component numbers.

B. By what particular characteristic is the mode of double substitution known?

C. Its characteristic is, that the sense of two or more propositions is so combined, that one (or more collectively) does, or may by substitution, form the subject and a part of the predicate of the other.

Examples of propositions stated in the mode of double substitution may be found in Nos. 106, 111, 123, 125, and, perhaps, in every other number of the Rambler.

There are instances to be found wherein two preponents are employed in one period, and three substitutes, all representing one principal; as,

> Though *IT may* appear strange, | *THIS is* certain, *THAT* [more men *have been* slain in attempting to save themselves by flight, than in the most bloody conflicts, where each army has kept its ground.]

This I call the mode of *treble substitution*: it is not common, and when it occurs, presents no difficulty. It evidently consists of three proposi-

tions; the first of which I call the *antepreponent*, the two latter, the preponent and principal, as in the mode of double substitution.

It is not on account of its situation, that I call the first proposition the antepreponent, but because its subject only represents the principal. The antepreponent may stand parenthetically between the predicate and last substitute of the preponent, thus,

> *THIS is* certain, (though *IT may* appear strange,) *THAT* more men *have been* slain in attempting to save themselves by flight, than in the most bloody contests where each army has kept its ground.

It often happens, in the mode of double substitution, that the particle *that* occurs twice, without the intervention of any other word; as,

> *IT is* said *THAT* [that gentleman studies the astronomy *that* the moderns have exploded.]

Now, here the particle *that*, in Italic capitals, is a substitute for the principal; but the word *that* preceding the subject of the principal, is what grammarians would call a definite article, as it restrains the general term *gentleman* to the particular person alluded to.

It may not be improper here to remark, that the word *that*, which occurs so frequently in our language, is chiefly employed for three purposes. First, it is used as an index to, or what I call a substitute for, a proposition. In this sense it is employed as a part of the predicate of the preponent in the preceding example; and in this sense also it is called by grammarians, a conjunction. Secondly, it is used as a definite article, that is, to restrain a general word to a particular person or thing, as it is employed before the word *gentleman* in the preceding example. In this sense it is often not quite so definite as the word *this*, but they are frequently used indifferently. Thirdly, it is used as a substitute for *who* or *which*, as it is employed after the word *astronomy* in the preceding example, and in this sense it is called a pronoun.

B. You have now distinguished propositions into congenial and repugnant, simple and compound, pure and modal, and have exemplified four modes of expreſsion, namely, the *common*, the mode of *single substitution*, the mode of *double substitution*, and the mode of *treble substitution*: pray are propositions to be divided into any other claſses?

C. Yes; into *general* and *special*.

B. What is a general proposition?

C. I call that a general proposition wherein the sense is complete; whether it be congenial or repugnant, pure or modal, simple or compound, in whatever mode it be stated.

B. What do you mean by a special proposition?

C. A special proposition is either an *anteprepo-nent*, a *preponent*, a *principal*, or is a proposition employed to compose and adjust an association of ideas to be subjected or predicated in the common mode of expreſsion. Thus, the combinations expreſsed in the mode of double or treble substitution, I call, collectively, general propositions; but the component parts, namely, the anteprepo-nent, preponent, and principal, I, indiscriminately, call special propositions.

B. Please to exemplify in the common mode of expreſsion.

C. He |who postpones improvement to a future day, § *may* remain ignorant | till | the opportunity *is* lost.

This is a general proposition, stated in the common mode of expreſsion. The general subject is divided from the general copula and the general predicate, by the section; it comprizes two special propositions: the first special proposition consists of the words *who postpones improve-*

ment to a future day, of which, *who* is the subject: this is employed to explain or define the character of the person meant by the pronoun *he*, to whom the agreement of the general predicate is about to be affirmed: this, therefore, I call a *special* proposition. The second special proposition is employed to compose the general predicate; it consists of the words *the opportunity is lost*, and it is connected to the preceding part of the general predicate by the particle *till*, standing between space rules.

B. Do you make any distinction between special propositions?

C. Yes; special propositions I divide into two classes, namely, *incident* and *subordinate*. I call a proposition incident, wherein the subject is represented by *who*, *which*, or *that*; and I consider that a subordinate proposition which has its proper subject, or the pronouns *he*, *she*, *it*, or *they*, but is yet no more than a component part of a general proposition. In the preceding example, the first special proposition, used in the composition of the general subject, I call *incident*; the second, or that used in the composition of the general predicate, I call *subordinate*.

Sometimes the substitute *that* will precede a special proposition which enters into the composi-

tion of a general predicate, but I consider such examples, nevertheleſs, as ſtated in the common mode of expreſsion ; as,

Mr. Locke ſays, *THAT*

A determinate portion of time or place *is* ſo much of thoſe boundleſs oceans of eternity and immenſity as is ſet out and diſtinguiſhed from the reſt, as it were by land marks.

Now, here the special proposition represented by the substitute *that*, immediately follows it, and thus both substitute and special proposition form a part of the general predicate ; and when we state the matter generally, they need not be distinguished, but may be incorporated in the general matter, thus,

Mr. Locke ſays, that a determinate portion of time or place is ſo much of thoſe boundleſs oceans of eternity and immenſity as is ſet out and diſtinguiſhed from the reſt, as it were by land-marks.

In some instances of this kind, where the fragment which precedes the substitute *that* is short, the substitute *that* may be discarded, and, as in the mode of double substitution, the words may be placed parenthetically between the subject and predicate of the special proposition, thus,

> A determinate portion of time or place (says Mr. Locke) *is* so much of those boundleſs oceans of eternity and immenſity as is ſet out and diſtinguiſhed from the reſt, as it were by land-marks.

Inſtances will frequently be found alſo, wherein two ſubſtitutes, namely, *this* and *that*, both repreſent the ſpecial propoſition, which forms a part of the general predicate; but if neither of theſe ſubſtitutes be ſubjected, the example poſſeſſes not the characteriſtic of the mode of double ſubſtitution, for the two ſubſtitutes will form component parts of the general predicate, and the example will, of courſe, be in the common mode of expreſſion. The following ſentence, from No. 399 of the Spectator, contains a ſatisfactory example.

"*Plutarch has written an eſſay on the benefits which a man may receive from his enemies, and, among the good fruits of enmity,* [*mentions this in particular, that, by the reproaches which it caſts upon us, we ſee the worſt ſide of ourſelves, and open our eyes to ſeveral blemiſhes and defects in our lives and converſations, which we ſhould not have obſerved without the help of ſuch ill-natured monitors.*"]

Now, the propoſitions alluded to ſtand between crotchets, and may be extracted from the extraneous matter, and diſtinguiſhed thus,

Plutarch mentions *THIS* in particular, *THAT*

We see the worst side of ourselves by the reproaches which enmity casts upon us, and open our eyes to blemishes and defects in our lives and conversations, which we should not have observed without the help of such ill-natured monitors.

Now, if we except propositions expressed in the imperative mood, and such as are stated in the form of an interrogatory, all others may be taken either positively or conditionally, as,

Learning *is* desirable.

Here the proposition is taken positively; but if it be preceded by the particle *if*, or the sign of the copula be placed first, it will be an hypothetical or conditional proposition; as,

If learning *be* desirable.

Were learning desirable.

Had learning *been* desirable.

B. May a proposition expressed in the mode of single or double substitution be taken hypothetically?

C. Yes; as,

POSITIVE.—*IT is* laudable to relieve the distressed.

HYPOTHETICAL.—If *IT be* laudable to relieve the distressed.

Pos. { *IT is true THAT*
Sir Isaac Newton analysed a ray of light.

Hyp. { If *IT be true THAT*
Sir Isaac Newton analysed a ray of light.

B. Is it really necessary to burthen the mind with such a number of distinctions respecting propositions?

C. Yes, absolutely necessary; as will appear hereafter: nor is there, in this system, a tenth part of the *minutiæ* which may be found in old logic.

B. Is there any thing more to be added respecting propositions?

C. Nothing but a few practical remarks as we proceed.

B. Since all the various kinds of proposisions are now sufficiently exemplified, and language consists of nothing more than a series of such kinds of propositions, as you have already explained; please to apply the doctrine of propositions to the language of some good authors, by way of exercise. Or, in other words, please to divide a few pages into propositions, distinguishing the parts of each by different types, and denoting, as it occurs, to which clafs, of those already explained, each proposition belongs.

CHAPTER II.

PROPOSITIONAL EXERCISES.

EXERCISE I.

SPECTATOR, *No.* CLXXXIII.

PERIOD I.

"*FABLES were the first pieces of wit that made their appearance in the world, and have been still highly valued, not only in times of the greatest simplicity, but among the most polite ages of mankind.*"

ANALYSIS.

Fables *were* the first pieces of wit

That made their appearance in the world,

And,

[Fables] *have been* still highly valued, not only in times of the greatest simplicity, but among the most polite ages of mankind.

OBSERVATION.

In this period, the word *fables* is the general subject; then two distinct general copulas and

predicates follow, which are joined together by the conjunction *and*. To compose the first general predicate, an incident proposition is employed. This sentence, as stated in the text, is, according to the preceding rules, a general, congenial, compound proposition: compound, because there are two distinct general predicates; and it is stated in the common mode of expreſsion: but when the subject, *fables*, is supplied before the second predicate, in the analysis, there appears two general propositions.

PERIOD II.

"*Jotham's fable of the Trees is the oldest that is extant, and as beautiful as any which have been made since that time.*"

ANALYSIS.

Jotham's fable of the Trees *is* the oldest
That *is* extant,
And,
[It *is*] as beautiful as any
Which *have been* made since that time.

OBSERVATION.

In this sentence, which is a general compound proposition, it will be observed, that there are two distinct general predicates, declared agreeable with

the same subject: they are connected by the conjunction *and*; but the subject and copula being omitted in the text before the second predicate, to render the matter complete, I have inserted in the analysis, between crotchets, *it*, as a substitute for *Jotham's fable of the Trees*, and *is*, as a copula; and thus the analysis exhibits two general propositions. It may be observed also, that each of the general predicates comprises an incident proposition.

PERIOD III.

"*Nathan's fable of the Poor Man and his Lamb, is likewise more ancient than any that is extant, besides the above-mentioned, and had so good an effect as to convey instruction to the ear of a king, without offending it, and to bring the man after God's own heart to a right sense of his guilt and his duty.*"

ANALYSIS.

Nathan's fable of the Poor Man and his Lamb, *is* likewise more ancient than any

That *is* extant, besides the above-mentioned,

And,

[It] had so good an effect as to convey instruction to the ear of a king, without offending it, and to bring the man after God's own heart to a right sense of his guilt and his duty.

OBSERVATION.

This example, in the text is a general compound proposition. The first general predicate comprises an incident proposition; the second is compound and elliptical. I have inserted the pronoun *it*, between crotchets, as a substitute for *Nathan's fable of the Poor Man and his Lamb*, but the analysis will be better explained by reducing the compound, and inserting the words understood between crotchets, thus,

It had so good an effect, as to convey instruction to the ear of a king, without offending it;

And,

[It had so good an effect as] to bring the man after God's own heart to a right sense of his guilt,

And,

[It had so good an effect as to bring the man after God's own heart to a right sense of] his duty.

PERIOD IV.

"*We find Æsop in the most distant ages of Greece; and, if we look into the beginnings of the commonwealth of Rome, we see a mutiny among the common people appeased by a fable of the Belly and the Limbs, which was, indeed, very proper to gain the attention of an incensed rabble, at a time when, perhaps, they would have torn to pieces any man who had preached the same doctrine to them in an open and direct manner.*"

ANALYSIS.

We find Esop in the most distant ages of Greece;

And,

If we look into the beginnings of the commonwealth of Rome,

We see a mutiny among the common people appeased by a fable of the Belly and the Limbs;

Which *was*, indeed, very proper to gain the attention of an incensed rabble, at a time

When, perhaps,

They *would have* torn to pieces any man

Who *had* preached the same doctrine to them in an open and direct manner.

OBSERVATION.

Here are six propositions: the first, being simple and obvious, requires no explanation; the second, connected to the first by the conjunction *and*, is taken hypothetically; the third comprises in its predicate the fourth, which is incident; the fifth is modal, and comprises in its predicate the sixth, which is also incident. The term *indeed*, in the fourth proposition, scarcely conveys any perceptible meaning; if, however, it signifies any thing, it must operate in the manner of a prepo-nent, meaning *it is true*, and may precede its principal, forming an example of the mode of double substitution, thus,

OBSERVATION.

This period may be considered as one general, comprising in its predicate two special propositions, each being represented by the substitute *that*. What stands subsequent to the word *else* also, according to Mr. Horne Tooke's etymology of the word *but*, will form a proposition in the imperative mood, thus,

Let the affections of the mind in a visible shape and character *be*-out [of the consideration.]

EXERCISE II.

HARVEY's MEDITATIONS ON THE NIGHT, Vol. II. p. 31, 32.

PERIOD I.

"*Darkneſs is now at its height; and I cannot but admire the obliging manner of its taking place.*"

ANALYSIS.

Darkneſs *is* now at its height;

And

I *cannot* but admire the obliging manner of its taking place.

OBSERVATION.

This sentence comprehends two general propositions connected by the conjunction *and*; the first

needs no explanation; in the second, the particle *but*, means *be-out*, and thus comprehends the copula; so that, if we would exhibit all the parts distinctly, the ſecond proposition may be re-stated thus,

I *cannot be* out of admiring the obliging manner of its taking place.

PERIOD II.

"*It comes not with a blunt abrupt incivility, but makes gentle and reſpectful advances.*"

ANALYSIS.

It comes *not* with a blunt abrupt incivility,

But

[It] makes gentle and reſpectful advances.

OBSERVATION.

This period, it appears, is a general compound proposition; and the two predicates are connected by the particle *but*. The real ſubject, namely, *darkneſs*, is represented by the pronoun *it*. In the analysis, the substitute *it*, preceding the second predicate, is supplied between crotchets; and thus two general propositions are formed.

PERIOD III.

"*A precipitate transition, from the ſplendors of day, to all the horrors of midnight, would be both inconvenient and frightful.*"

ANALYSIS.

A precipitate transition, from the splendors of day, to all the horrors of midnight, *would be* both inconvenient and frightful.

OBSERVATION.

This is a general *congenial* modal compound proposition, there being two predicates; the arrangement is so perfectly in order that remark is unnecefsary.

PERIOD IV.

" *It would bewilder the traveller in his journey; it would strike the creation with amazement; and perhaps be pernicious to the organs of sight.*"

ANALYSIS.

It *would* bewilder the traveller in his journey;

It *would* strike the creation with amazement;

And perhaps

[It *would*] *be* pernicious to the organs of sight.

OBSERVATION.

This period, when the ellipsis is supplied, consists of three general *modal* propositions; in each of which, the subject of the third period, namely, darkneſs, is represented by the pronoun *it*. The two first are regular, and stated perfectly in order; the third being elliptical in the text, I have sup-

plied, in the analysis, the subject and sign of the copula between crotchets. The word *perhaps* has the effect of a *special proposition* or preponent, signifying *it is probable*, and qualifies the force of the affirmation.

PERIOD V.

"*By this means we are neither alarmed nor incommoded by the change; but are able to take all suitable and timely measures for its reception.*"

ANALYSIS.

By this means

We *are neither* **alarmed** *nor* **incommoded by the change;**

But

[We] *are* **able to take all suitable** and **timely measures for its reception.**

OBSERVATION.

This is a general compound proposition, or when the ellipsis is supplied, two general compound propositions, preceded by a fragment. The subject of the second is supplied between crotchets in the analysis. The fragment consisting of the words, *by this means*, signifying *therefore*, alludes to the second proposition in the second period, which exhibits a reason why *we are neither alarmed nor incommoded by the change*; this, by bringing the two propositions together, will be sufficiently manifest; as,

It [that is, darkneſs] makes gentle and respectful advances, by this means [or therefore] we *are neither* alarmed *nor* incommoded by the change.

PERIOD VI.

"*Thus graciously has providence regulated, not only the grand viciſsitudes of the seasons, but also the common interchanges of light and darkneſs with an apparent reference to our comfort.*"

ANALYSIS.

Providence *has* thus graciously regulated, not only the grand viciſsitudes of the seasons,

But

[Providence *has*] also [graciously regulated] the common interchanges of light and darkneſs with an apparent reference to our comfort.

OBSERVATION.

There is nothing to remark in this period but that the second proposition is elliptical, and that now the defect is supplied between crotchets in the analysis, two general propositions are exhibited.

PERIOD VII.

"*Now the fierce inhabitants of the forest forsake their dens.*"

ANALYSIS.

Now

The fierce inhabitants of the forest forsake their dens.

OBSERVATION.

This period requires no comment.

PERIOD VIII.

"*A thousand grim forms, a thousand growling monsters, pace the desert.*"

ANALYSIS.

A thousand grim forms, a thousand growling monsters, pace the desert.

OBSERVATION.

This period also is so plain that comment is unnecessary.

PERIOD IX.

"*Death is in their jaws, while, stung with hunger, and a thirst for blood, they roam their nightly round.*"

ANALYSIS.

Death *is* in their jaws,

While,

They roam their nightly round, stung with hunger, and a thirst for blood.

OBSERVATION.

This period consists of two propositions, connected and declared coincident in point of time by the particle *while*.

PERIOD X.

" O! unfortunate traveller, overtaken by the night, in those dismal wilds! How must he stand agast, at the mingled yell of ravenous throats, and lions roaring after their prey!"

ANALYSIS.

O! [if an] unfortunate traveller [*be*] overtaken by the night, in those dismal wilds!

How

He *must* stand agast at the mingled yell of ravenous throats, and lions roaring after their prey!

OBSERVATION.

This paſsage affords two propositions. The firſt, in the text, is an exclamatory member affirming nothing; but a supplement something like what I have introduced between crotchets must be underſtood to make the ſenſe complete, and thus it aſsumes the character of an hypothetical proposition. The second is modal, and requires no explanation.

PERIOD XI.

" Defend him, propitious heaven! or else he must see his endearing spouse, and hail his native home no more!"

ANALYSIS.

Propitious heaven, defend him!

Or else

He *must* see his endearing spouse, and hail his native home no more!

OBSERVATION.

This paſsage also comprises two propositions; the first is stated in the imperative mood, and the second is modal.

EXERCISE III.

RAMBLER, No. IX.

PERIOD I.

" It is pleasing to contemplate a manufacture rising gradually from its first mean state, by the succeſsive labours of innumerable minds; to consider the first hollow trunk of an oak, in which, perhaps, the shepherd could scarce venture to croſs a brook swelled with a shower, enlarged at last into a ship of war, attacking fortreſses, terrifying nations, setting storms and billows at defiance, and visiting the remotest parts of the globe."

ANALYSIS.

To contemplate a manufacture rising gradually from its first mean state by the succeſsive labours of innumerable minds; to consider the first hollow trunk of an oak, (the shepherd *would* scarce venture to croſs a brook swelled with a shower, in which, perhaps,) enlarged at last into a ship of war, attacking fortreſses, terrifying nations, setting storms and billows at defiance, and visiting the remotest parts of the globe, *is* pleasing.

OBSERVATION.

This period is a compound proposition, and, in its general consideration, is pure; it is stated in the mode of single substitution; the pronoun *it*, which in the text represents the compound subject, is discarded in the analysis, and the two general compound subjects are placed before the predicate. In the composition of the second subject, will be observed, within parenthesis, a modal subordinate proposition; and the word *perhaps*, at the conclusion of its predicate, is a substitute for a proposition still more special, since it operates as a qualification upon that subordinate affirmation, signifying that *it is probably true*, and may, whenever it occurs, form a preponent, and precede the proposition to which it refers, as exemplified page 38.

PERIOD II.

"*Every man ought to endeavour at eminence, not by pulling down others, but by raising himself, and enjoy the pleasure of his own superiority, whether imaginary or real, without interrupting others in the same felicity.*"

ANALYSIS.

Every man *ought to* endeavour at eminence, not by pulling down others, but by raising himself,

And

[Every man *ought to*] enjoy the pleasure of his own superiority, whether imaginary or real, without interrupting others in the same felicity.

OBSERVATION.

Here the text may be considered as a modal compound proposition, but, as the language is elliptical, a supplement is added in the analysis, between crotchets, and thus two general propositions appear, connected by the conjunction *and*.

PERIOD III.

"*The philosopher may very justly be delighted with the extent of his views, and the artificer with the readineſs of his hands; but let the one remember that, without mechanical performance, refined speculation is an empty dream, and the other, that, without theoretical reasoning, dexterity is little more than a brutal instinct.*"

ANALYSIS.

The philosopher *may be* **very justly delighted with the extent of his views,**

And

The artificer [*may be* **very justly delighted**] **with the readineſs of his hands;**

But

Let the one **remember** *THAT*

Refined speculation, without mechanical performance, *is* **an empty dream,**

And

[*Let*] the other [**remember**] *THAT*

Dexterity, without theoretical reasoning, *is* **little more than a brutal instinct.**

OBSERVATION.

Here the two members preceding the particle *but* are two modal propositions. In the analysis will be observed a supplement for an ellipsis which contributes much to the elegance of the text; the transposition of the copulas may also cramp the ſtyle of the author, but our purpose in the analysis is to exhibit the parts of each proposition distinctly, and in order, without regarding the arrangement which the writer may have chosen. The two propositions subsequent to the particle *but* are both stated in what grammarians call the imperative mood. It may be also observed that the relatives *that*, in italic capitals, represent the special propositions which immediately follow, and which constitute a part of each general predicate.

EXERCISE IV.

RAMBLER, *No.* LXXXIX.

PERIOD I.

"*Locke, whom there is no reason to suspect of being a favourer of idleneſs or libertinism, has advanced, that whoever hopes to employ any part of his time with efficacy and vigor, must allow some of it to paſs away in trifles.*"

ANALYSIS.

Locke, (*no* reason *is* existent to suspect whom of being a favourer of idleness or libertinism,) *has* advanced, *THAT*

Every one, (who hopes to employ any part of his time with efficacy and vigor,) *must* allow some of it to pass away in trifles.

OBSERVATION.

This is one general proposition, and the general subject ends with the first parenthesis; the remaining part of the period composes the general predicate. In the composition of the general subject a subordinate special proposition, standing between parenthesis, is employed to define the character of Mr. Locke. In this special proposition is substituted *existent* for the term *there*, which, as it has been before observed, is always its meaning when it does not refer to any particular place. In the composition of the general predicate two special propositions are employed, the one standing parenthetically between the subject and predicate of the other. Now these two special propositions, the one being *incident* and the other *subordinate*, are collectively represented by the relative *that*, immediately preceding them. Let it moreover be observed, that the word *whoever* comprehends the subject of each of these special propositions. For this reason, and in order to show these two special propositions

distinctly, I have divided the word *whoever*, in the analysis, into *every one—who*, which is its proper meaning; so that *every one* forms the subject of the subordinate proposition, and *who* that of the incident proposition. It is not absolutely neceſſary that one should be involved in the other, for they may be stated distinctly, thus:

Every one *must* allow some of his time to paſs away in trifles

Who hopes to employ any part of it with efficacy.

PERIOD II.

"*It is beyond the powers of humanity to spend a whole life in profound study and intense meditation, and the most rigorous exacters of industry and seriousneſs have appointed hours of relaxation and amusement.*"

ANALYSIS.

To spend a whole life in profound study and intense meditation *is* beyond the powers of humanity,

And

The most rigorous exacters of industry and seriousneſs *have* appointed hours of relaxation and amusement.

OBSERVATION.

The first of these two general propositions is pure, congenial, and stated in the mode of single substitution. The second proposition connected by the conjunction *and*, is stated in the common

mode of expreſſion; and whether it be ranked as a simple or a compound proposition is a matter of little moment. The words *industry* and *seriousneſs* seem coupled together to form one aſsociation to be subjected, and the words *relaxation* and *amusement* seem united to form one aſsociation to be predicated. It is certainly poſsible to divide the matter into four distinct propositions, but the investigation of such trifles is neither eſsential or important.

PERIOD III.

"*It is certain, that, with or without our consent, many of the few moments allotted us will slide imperceptibly away, and that the mind will break from confinement to its stated task, into sudden excursions.*"

ANALYSIS.

IT is certain, *THAT*

Many of the few moments allotted us *will* slide imperceptibly away, with or without our consent,

And

[*IT is* certain] *THAT*

The mind *will* break from confinement to its stated task, into sudden excursions.

OBSERVATION.

This sentence, with the supplement, affords two general propositions, each being stated in the

mode of double substitution. The preponent of the latter being omitted in the text, is inserted, in the analysis, between crotchets; and thus in each example the proposition composing the principal is represented both by *it* and *that*.

PERIOD IV.

"*Severe and connected attention is preserved but for a short time; and when a man shuts himself up in his closet, and bends his thoughts to the discuſsion of any abstruse question, he will find his faculties continually stealing away to more pleasing entertainments.*"

ANALYSIS.

Severe and connected attention *is* preserved but for a short time,

And when

A man shuts himself up in his closet, and bends his thoughts to the discuſsion of any abstruse question,

He *will* find his faculties continually stealing away to more pleasing entertainments.

OBSERVATION.

That part of this period preceding the words *and when* is a general congenial proposition, stated in the common mode of expreſsion. The two latter propositions are declared coincident in point of time by the particle *when*. And whether they be considered as two general propositions, or that

the last be taken as a part of the general predicate of the first, is a matter of no importance. They may be exhibited as one general proposition, thus,

When

A man shuts himself up in his closet, and bends his thoughts to the discussion of any abstruse question, he will find his faculties continually stealing away to more pleasing entertainments.

PERIOD V.

"*He often perceives himself transported, he knows not how, to distant tracts of thought; and returns to his first object as from a dream, without knowing when he forsook it, or how long he has been abstracted from it.*"

ANALYSIS.

He often perceives himself transported to distant tracts of thought;

He knows *not* how

[He *is* transported]

And

[He] returns to his first object as from a dream, without knowing when [*i. e.* the time]

He forsook it, or how long

He *has been* abstracted from it.

OBSERVATION.

Here the said man is again subjected, and two general propositions precede the conjunction *and*; the second of which implies in its predicate a

special proposition supplied between crotchets. The subsequent part consists of one general proposition; the subject, in the text, is omitted, but is, in the analysis, supplied between crotchets; its general predicate will be found to comprise two special propositions of that clafs which we call subordinate.

EXERCISE V.

RAMBLER, *No.* CLI.

PERIOD I.

"*It had been a task worthy of the moral philosophers to have considered with equal care the climactericks of the mind; to have pointed out the time at which every paſsion begins and ceases to predominate, and noted the regular variations of desire, and the succeſsion of one appetite to another.*"

ANALYSIS.

To have considered with equal care the climactericks of the mind; to have pointed out the time (at which [or when] every paſsion **begins** and **ceases to predominate**) and [to have] noted the regular variations of desire, and the succefsion of one appetite to another, *had been* **a task worthy of the moral philosophers.**

OBSERVATION.

This is one general compound proposition expreſsed in the mode of single substitution. The substitute *it*, which, in the text, represents the compound subject, is discarded in the analysis, and the compound subject aſsumes its proper place. In the composition of the second component subject a subordinate proposition is employed, which, with the conjunctive words *at which*, signifying *when*, stands within parentheses. Immediately after the conjunction *and*, which connects the second, to the third component subject, is a supplement between crotchets, for an ellipsis in the text.

PERIOD II.

"*The periods of mental change are not to be stated with equal certainty: our bodies grow up under the care of nature, and depend so little on our own management, that something more than negligence is neceſsary to discompose their structure, or impede their vigour.*"

ANALYSIS.

The periods of mental change *are not* to be stated with equal certainty:

Our bodies grow up under the care of nature, and depend so little on our own management, *THAT*

Something more than negligence *is* neceſsary to discompose their structure, or impede their vigour.

OBSERVATION.

This period comprises two general propositions. The first is regular and simple; the second is compound, there being two general predicates connected by the conjunction *and*, the latter of which comprises a subordinate proposition indicated by the particle *that*, printed in italic capitals.

PERIOD III.

"*But our minds are committed in a great measure, first to the direction of others, and afterwards of ourselves.*"

ANALYSIS.

But

Our minds *are* committed in a great measure, first to the direction of others, and afterwards [to the direction] of ourselves.

OBSERVATION.

The analysis of this period is so obvious, that it is scarcely necessary to say it is an elliptical compound proposition.

PERIOD IV.

"*It would be difficult to protract the weakness of infancy beyond the usual time, but the mind may be very easily hindered of its share of improvement, and the bulk and strength of manhood must, without the assistance of education and instruction, be informed only with the understanding of a child.*"

ANALYSIS.

To protract the weakneſs of infancy beyond the usual time *would be* difficult;

But

The mind *may be* very easily hindered of its share of improvement,

And

The bulk and strength of manhood, without the aſsistance of education and instruction, *must be* informed only with the understanding of a child.

OBSERVATION.

This period comprises three general modal propositions. The first is stated in the mode of single substitution, and the two subsequent in the common mode of expreſsion.

PERIOD V.

" *If we consider the exercises of the mind, it will be found that in each part of life some particular faculty is more eminently employed.*"

ANALYSIS.

If we consider the exercises of the mind,

IT will be found *THAT*

Some particular faculty *is* more eminently employed in each part of life.

OBSERVATION.

This period comprises three special, composing one general proposition. The first special proposition is taken hypothetically, and the two latter are combined in the mode of double substitution. If we drop the special distinctions and take the matter generally the proposition may be stated thus:

If we consider the exercises of the mind it will be found that some particular faculty is more eminently employed in each part of life.

PERIOD VI.

"*When the treasures of knowledge are first opened before us, while novelty blooms alike on either hand, and every thing equally unknown and unexamined seems of equal value, the power of the soul is principally exerted in a vivacious and desultory curiosity.*"

ANALYSIS.

When

The treasures of the mind *are* first opened before us,

While

Novelty blooms alike on either hand,

And

Every thing equally unknown and unexamined seems of equal value,

The power of the soul *is* principally exerted in a vivacious and desultory curiosity.

OBSERVATION.

This period may be considered as two general propositions, declared coincident in point of time by the particle *when*. In the composition of the first general, three special propositions are employed. The matter of these three special propositions may be exhibited collectively, thus,

> The treasures of the mind *are* first opened before us, while novelty blooms alike on either hand, and every thing equally unknown and unexamined seems of equal value.

Or the whole sentence may be stated as one general proposition, by taking every thing into the general predicate after the first copula. We can, indeed, find the ultimate analysis of every period, but we cannot, with any certainty, limit a proposition to greater or less degrees of generality.

PERIOD VII.

"*She applies by turns to every object, enjoys it for a short time, and then flies with equal ardour to another.*"

ANALYSIS.

She applies by turns to every object, enjoys it for a short time, and then flies with equal ardour to another.

OBSERVATION.

This period is one general compound proposition, there being three distinct predicates.

PERIOD VIII.

"*She delights to catch up loose and unconnected ideas, but starts away from systems and complications which would obstruct the rapidity of her transitions, and detain her long in the same pursuit.*"

ANALYSIS.

She **delights to catch up loose** and **unconnected ideas**, but
starts away from systems and **complications**
Which *would* **obstruct the rapidity of her transitions**, and
detain her long in the same pursuit.

OBSERVATION.

This is one general compound proposition, there being several distinct parts in the general predicate which comprises an incident proposition, consisting also of two distinct predicates.

PERIOD IX.

"*While the judgment is yet uninformed, and unable to compare the draughts of fiction with their originals, we are delighted with improbable adventures, impracticable virtues, and inimitable characters: but, in proportion as we have more opportunities of acquainting ourselves with living nature, we are sooner disgusted with copies in which there appears no resemblance.*"

ANALYSIS.

While

The judgment *is* yet uninformed, and unable to compare the draughts of fiction with their originals,

We *are* delighted with improbable adventures, impracticable virtues, and inimitable characters:

But, in proportion as

We have more opportunities of acquainting ourselves with living nature,

We *are* sooner disgusted with copies

|In which| *no* resemblance appears existent.

OBSERVATION.

This period comprises four general propositions. The two first, which are declared coincident in point of time by the particle *while*, are compound, there being two distinct predicates attributed to the first subject and three to the second. To the two first the third and fourth are connected by the particle *but*. The third requires no explanation. The fourth comprises in its predicate a subordinate proposition, and the words *in which*, though placed first between space rules, to comply with the English idiom, evidently belong to the predicate. It may be also observed, that for the word *there*, in the text, the term *existent* is substituted in the analysis. The words *in proportion as*

shew, in the nature of a conjunction, that the degree of increase expreſsed in the third, will operate in the same comparative *ratio* in the fourth proposition.

PERIOD X.

"*We first discard absurdity and impoſsibility, then exact greater and greater degrees of probability, but at last become cold and insensible to the charms of falsehood, however specious, and from the imitations of truth, which are never perfect, transfer our affection to truth itself.*"

ANALYSIS.

We **first discard absurdity** and **impoſsibility, then exact greater** and **greater degrees of probability,** but **at last become cold** and **insensible to the charms of falsehood, however specious,** and **transfer our affection from the imitations of truth,** (which *are never* perfect) **to truth itself.**

OBSERVATION.

Here it may be observed, that though, in the preceding exercises, I have inserted a supplement, in most instances where an ellipsis has occurred, in this exercise the ellipses are in general unsupplied. The insertion of a supplement for a general subject, in the preceding exercises, frequently gave me occasion to remark, that what may be ranked as one general compound proposition in the text, would be taken as several general propositions, when the subject was repeated in the

analysis. The particles which appear in Roman letter are used not only to connect propositions to one another, and exhibit the relation between them, but also to connect the parts of a compound subject or a predicate, and one word to another in each respective part. When they connect propositions, I have rendered them sufficiently distinct, by throwing them into a line by themselves, but when they are interspersed in the propositional matter, I have no mode of distinguishing those which join one propositional member to another, from those which connect one word to another in a single member. It will appear then, that the preceding period, though called one general proposition, may, as in many instances in the preceding exercises, be distinguished into as many general propositions, by repeating the general subject, as there are distinct propositional parts in the general predicate; as,

We first discard absurdity and impossibility,
Then
We exact greater and greater degrees of probability,
But
We become cold and insensible at last to the charms of falsehood, however specious,
And
We transfer our affection from the imitations of truth, (Which *are never* perfect), to truth itself.

PERIOD XI.

"*No weakneſs of the human mind has more frequently incurred anima dversion, than the negligence with which men overlook their own faults, however flagrant, and the easineſs with which they pardon them, however frequently repeated.*"

Rambler, No. CLV.

ANALYSIS.

No weakneſs of the human mind *has* **incurred animadversion**

More frequently than

The negligence (**with which** men **overlook their own faults, however flagrant,**) *has* **incurred animadversion,**

And

The easineſs (**with which**) they **pardon them, however frequently repeated,**) *has* **incurred animadversion.**

OBSERVATION.

Here the first proposition is expreſsed in a simple and obvious order; then follow the comparative signs, *more frequently than*, shewing, in the nature of a conjunction, that the first predicate is no *oftener* applicable to any other weakneſs of the human mind *than* to the specific weakneſses defined in the subjects of the two subsequent propositions. In defining the *kind of negligence* and the *kind of easineſs* which are subjected, a subordinate proposition, standing between parentheses, is employed in

each instance. The words *in which*, distinguished between space rules, though placed first according to the English idiom, evidently belong to the respective special predicates. To these two subjects, namely, *negligence* and *easineſs*, thus defined, the predicate of the first proposition is respectively attributed.

Now it is a matter of no importance, neither in the preceding nor in any similar instance, whether the matter be considered as five special composing one general proposition, or two general each comprising a special proposition, so that the analysis be completely understood; for the matter may be stated collectively as one general compound proposition, thus,

> No weakneſs of the human mind *has* **more frequently incurred animadversion than the negligence with which men overlook their own faults, however flagrant; and the easineſs with which they pardon them, however frequently repeated.**

Or be divided into two general, each comprising a special proposition, thus,

> No weakneſs of the human mind *has* **incurred animadversion more frequently than the negligence with which men overlook their own faults, however flagrant;**
>
> And
>
> **No weakneſs of the human mind *has* incurred animadversion more frequently than the easineſs with which they pardon them however frequently repeated.**

It is neceſsary in the art of reasoning to understand the complete propositional analysis of every sentence, that is, to distinguish each proposition, and know its characteristic.

For this reason I have stated every proposition in these exercises in a distinct line, except it occurs parenthetically, as in pages 38, 47, 65, &c. when such an arrangement is impracticable. Now, though I have commonly observed that a period *may be considered as so many general comprising so many special propositions*, yet, as we have several times remarked, the generality of a proposition may be more or leſs extensive. Hence the characteristic of a general proposition, p. 27, that it is *a proposition wherein the sense is complete*, though perhaps the best I could have adopted, is not sufficiently definite. Nothing, it will appear, can exactly determine the generality of a proposition but the dimension which it aſsumes in forming a component part of an act of reasoning; and this dimension varies as the occasion may invite. Sometimes one of the propositions composing an act of reasoning will consist of several long periods, and on other occasions of two single words.

These remarks I have thought proper to make, that, when the pupil is employed in propositional exercises, he may be only expected to return his leſson to the tutor with every proposition accurately

distinguished under its proper denomination, without attempting to exhibit on all occasions an exact limitation of generality.

B. Are all the idioms neceſsary to be noticed in the doctrine of propositions exemplified in the five preceding exercises?

C. Yes.

B. Is it abſolutely neceſsary, in the art of reaſoning, to be acquainted with this exact analysis of a sentence?

C. Yes, it is impoſsible that we can know properly what reasoning is without being able to distinguish clearly each proposition, because propositions are the parts of which reasoning is composed; what, therefore, we know of reasoning without a knowledge of propositions is like what we know of language without a knowledge of letters.

B. Surely the word *reasoning*, in common conversation, seems to convey a satisfactory meaning.

C. So most men would be inclined to think, but many would be embarraſsed in attempting to give a clear example of what they mean by reasoning.

CHAPTER III.

OF REASONING.

B. PLEASE to give an example of reasoning.

C. The following is an act of reasoning, in which every component part is expressed:

EXAMPLE I.

SYLLOGISM.

Major Hypothesis.	EVERY *man* is mortal,
Minor Hypothesis.	PETER is *a man*;
Asserting Proposition.	Therefore, PETER is mortal.

Now here are three propositions, the last of which is the proposition proved; and the two preceding propositions exhibit the major and minor hypotheses, or two conditions on which the proof depends. This order of arrangement is called a syllogism.*

* See Essentials of Logic, page 73.

B. Pray what do you mean by *major hypothesis*?

C. The major hypothesis is always a principal condition either expreſsed or implied in every act of reasoning. Thus the major hypothesis or primary condition, admitted in the preceding example, is expreſsed in the first proposition, wherein it is taken for granted that *every man is mortal.*

B. Pray what is the *minor hypothesis*?

C. The minor hypothesis is a second condition admitted in every act of reasoning. In the preceding example it is admitted as a minor hypothesis that the term *man* belongs to the term *Peter.* Now, upon these two conditions the proof entirely depends; for if it be true that *every man is mortal*, and if it be true that *Peter is a man*, it must follow that *Peter is mortal.* The arrangement of these three propositions is not confined to the order of a syllogism; they may be stated thus:

Aſſerting Proposition.	PETER is mortal,
Minor Hypothesis.	Because HE is *a man*;
Major Hypothesis.	And EVERY *man* is mortal.

Now here the proposition, aſserting the fact, stands first; the minor hypothesis, or second condition, shewing the reason *why*, has the second place, and the major hypothesis, or principal condition, is placed last.

B. Pray why is the word *man* printed in Italic, the word *Peter* in small capitals, and the word *mortal* in black letter?

C. This is a mode I have chosen to exhibit the analysis of reasoning; that is, to distinguish each different part of which an act of reasoning is composed.

B. Please to explain the different parts of an act of reasoning.

C. Every complete act of reasoning must consist of what is called a *major*, a *middle*, and a *minor* term. The *major term* is always the *predicate* of *the aſserting proposition*, as the word *mortal* in the preceding examples; the *middle term* is always the *predicate* of *the minor hypothesis*, and signifies the *reason why*, as the word *man* in the preceding examples; and the *minor term* is always the *subject* of the *aſserting proposition*, as the word *Peter*, in the preceding examples. The *middle term*, indeed, forms the subject, and the *major term* forms the predicate also of the *major hypothesis*; but we take them not from that proposition, because it is sometimes omitted in reasoning, as will appear hereafter. If, for instance, we abstract the three terms from the other component parts, they may be stated in the different characters, thus,

Major Term,	Middle Term,	Minor Term,
Mortal.	*Man.*	PETER.

Now the better to distinguish these terms, or parts, (as in some examples each of them consists of many words), the major term will always appear in black letter, the middle term in Italics, and the minor term in small capitals.

Besides these three terms, as they are denominated, in the composition of an act of reasoning will be found copulas and a sign of reasoning, as *is*, *therefore*, and *because*, in the preceding examples; these will always appear in Roman letter. There is also expreſsed or implied in every act of reasoning what I call an *universal sign*, as *every*, in the preceding examples. These universal signs, to preserve in the analysis a clear distinction, will appear in Roman capitals.

B. Having given an example of a complete act of reasoning in two different orders of arrangement, and having denominated its parts, and distinguished them in different characters, please to explain what the busin[illegible] of reasoning is, and wherein it consists.

C. The busineſs of reasoning is to shew that a single being, or number of beings, are or are not subject to a certain attribute or attributes common to a whole claſs; as in the preceding example it is shewn that Peter is subject to the attribute *mortal*, because he is a *man*.

The variety of objects of which the mind takes cognizance is clafsed and distinguished by general and special denominations or attributes, and the whole businefs of reasoning consists in shewing that a particular being or number of beings are or are not subject to one attribute or denomination, because it or they are or are not subject to another.

B. Please to shew how this observation applies to the preceding examples.

C. *Peter*, in the minor term, signifies a particular individual, and it is shewn that, because *Peter* is subject to the denomination *man*, he is also subject to the attribute *mortal*.

B. What is the first procefs towards shewing that *Peter* is *mortal*?

C. The first procefs is the statement of a primary condition, or major hypothesis, on the admifsion of which the truth or falsehood of Peter's being mortal must principally depend.

B. Pray what is admitted in the first, or major hypothesis?

C. We admit an unlimited agreement between the middle term *man* and the major term *mortal*, that is, we admit, that wherever the word *man* may be attributed, the word *mortal* may be attributed also; and this unlimited agreement is signified by the universal sign *every*, printed in Roman capitals.

B. How do we next proceed?

C. In the second, or minor hypothesis, we admit that the middle term *man* is applicable to the minor term *Peter*; and thus, having first admitted that wherever the general term *man* may be ascribed the more general term *mortal* may be ascribed also; and secondly, that the general term *man* is applicable to the special term *Peter*; we must in the aſserting proposition admit, that the term *mortal*, which is an universal aſsociate with the term *man*, belongs to *Peter* also.

B. Pray give an example of reasoning wherein the three terms or parts consist of more than a single word each.

EXAMPLE II.

SYLLOGISM.

Major Hypothesis. } HE WHO *suffers paſsion to supersede his reason* contributes to his own unhappineſs,

Minor Hypothesis. } A VIOLENT MAN *suffers paſsion to supersede his reason;*

Aſserting Proposition. } Therefore, A VIOLENT MAN contributes to his own unhappineſs.

Now here the three terms or parts may be abstracted and exhibited; thus,

Major Term.
Contributes to his own unhappineſs.
Middle Term.
Suffers paſsion to supersede his reason.
Minor Term.
A VIOLENT MAN.

Thus it appears that the three principal parts composing an act of reasoning, though called terms, frequently consist of a number of words, an attribute, or a train of attributes, which, when we have abstracted, for the sake of viewing them distinctly, convey little or no meaning.

B. Pray what is the major hypothesis in the preceding example?

C. It is admitted that to *he who*, *every one who*, or *whosoever*, the attribute, *suffers paſsion to supersede his reason*, may be ascribed, the attribute, *contributes to his own unhappineſs*, may be ascribed also; or, in other words, an aſsociation of the attributes composing the middle and major terms is admitted, and, to the person to whom the first is applicable, the second is applicable also: the one is applied to a *violent man*, in the minor hypothesis, and the other must be admitted to belong to a *violent man*, in the aſserting proposition. In all instances, let it be remarked, wherein both the middle and major terms are attributes, as in the preceding example, the major hypothesis is composed of two propositions.

B. Under what denomination do you rank the words *he who*, printed in Roman capitals?

C. These words I call the *universal sign*; the word *every*, preceding the subject of the first example, where the middle term is a substantive, is also an universal sign; and these signs signify

that *every* person or thing to which the middle term may be applicable or repugnant, is comprehended.

B. Is it absolutely neceſsary that the middle term, as the subject of the major hypothesis, should comprehend every person or thing to which the name is applicable: or, if it be an attribute, must all the persons or things to which the attribute refers be comprehended?

C. Yes; in every form of reasoning, the subject of the major hypothesis must either comprise *all* or *every person* or *thing* denominated, when it is the name of a claſs of beings, or to which it is referable, when an attribute; or, it must, by a negative particle, exclude them universally. The reason of this will appear as we proceed, and is explained in the Eſsentials of Logic, from page 88 to page 92.

B. Are there always three distinct propositions expreſsed in the familiar reasoning which is used in common conversation?

C. No, in familiar language we should probably expreſs the preceding act of reasoning; thus,

CAUSAL ENTHYMEME.

Aſserting Proposition. } A VIOLENT MAN contributes to his own unhappineſs,

Reasoning Proposition. } Because HE *suffers paſsion to supersede his reason.*

Sometimes, in this same order of language, the sign of reasoning is *for*, instead of *because*; as,

A VIOLENT MAN contributes to his own unhappineſs,
For HE *ſuffers paſsion to supersede his reason.*

Thus, in this familiar mode of reasoning, it appears that the aſserting proposition is stated first, and the reason is aſsigned afterwards in what I call a reasoning proposition. This is usually preceded by the sign *because* or *for*, and the major hypothesis is entirely omitted; but still the *major*, *middle*, and *minor* terms are fully expreſsed, and the major hypothesis is implied. This form of reasoning I call the *causal enthymeme*.

B. What do you mean by the term *enthymeme*?

C. Every act of reasoning wherein no more than two propositions are expreſsed I call an *enthymeme*.

B. Is the major hypothesis never used in the familiar forms of reasoning?

C. Yes, sometimes it is added after the reasoning proposition, but in most instances it seems superfluous; as,

Aſserting Proposition.	A VIOLENT MAN contributes to his own unhappineſs,
Reaſoning Proposition.	Because HE *suffers paſsion to supersede his reason*;
Major Hypothesis.	And ALL THOSE WHO *suffer paſsion to supersede their reason* do contribute to their own unhappineſs.

Here the verb *to do*, in the major hypothesis, is substituted as a copula for the verb *to be*; this is often the case, but the verb *to be* may be afsumed; as,

ALL THOSE WHO *suffer paſsion to supersede their reason* are **contributing to their own unhappineſs.**

B. Is there not another mode of expreſsing this act of reasoning in familiar language?

C. Yes, we frequently use the minor hypothesis and aſserting proposition of a syllogism; thus,

REGULAR ENTHYMEME.

Reasoning Proposition. } A VIOLENT MAN *suffers paſsion to supersede his reason;*

Aſserting Proposition. } Therefore, HE [*i. e.* the said violent man,] **contributes to his own unhappineſs.**

To make this a syllogism, we have only to supply the major hypothesis in its proper place. This form of reasoning I call the *regular enthymeme*, and the sign of reasoning is *therefore*, as in a syllogism.

Sometimes an act of familiar reasoning is expreſsed in the same order, but the sign of reasoning is *since* or *as*, and it precedes the reasoning proposition; thus,

OBVIOUS ENTHYMEME.

Reaſoning Proposition. } Since, [or as] a VIOLENT MAN *suffers paſsion to supersede his reason,*

Aſserting Proposition. } HE **contributes to his own unhappineſs.**

This, for the sake of distinction, I call the *obvious enthymeme*.

There is still another mode of expreſsing an act of reasoning in familiar language; as,

HYPOTHETICAL ENTHYMEME.

Reasoning Proposition. } If A VIOLENT MAN *suffer paſsion to supersede his reason*,

Aſserting Proposition. } HE [that is, the said violent man,] **contributes to his own unhappineſs.**

The particle *if* is the imperative of a verb, signifying to *give* or *grant*, so that the agreement of the minor term with the middle term, or what I call the minor hypothesis, is not positively affirmed in this last as in all the preceding examples, but admitted only as a condition. This I call the *hypothetical enthymeme*.

There must always be two hypotheses expreſsed or implied in every act of reasoning. The major hypothesis is always an absolute agreement or repugnance between the *middle* and *major* terms, as between the middle term, *suffers paſsion to supersede his reason*, and the major term, *contributes to his own unhappineſs*, in the preceding instances. The agreement or repugnance between the *minor* and *middle* term, which I call the minor hypothesis, is not always taken absolutely, but is sometimes taken conditionally, as in the preceding

example. Thus the truth of the proposition proved must depend upon the truth of the two previous conditions. This will appear forcibly, if we state the last example; thus,

Grant that

Minor Hypothesis. } A VIOLENT MAN *suffers paſsion to supersede his reason.*

And grant that

Major Hypothesis. } ALL THOSE WHO *suffer paſsion to supersede their reason*, contribute to their own unhappineſs.

You then, must admit that

Aſserting Proposition. } A VIOLENT MAN contributes to his own unhappineſs.

This I think is sufficiently clear without further comment.

The hypothetical enthymeme, though it has hitherto been called, by all writers on the subject, a proposition, is one of the most common, and certainly one of the most useful forms of reasoning in the compaſs of language.

The major hypothesis, which, in familiar reasoning, is usually omitted, is always, whether expreſsed or understood, a positive affirmation, supposed to be indisputable, and is never purposely aſsumed contrary to fact; whereas it is neceſsary very frequently to aſsume a minor hypo-

thesis which may be absolutely false, purposely to shew the future tendency, or absurdity, of such an assumption; as,

EXAMPLE III.

HYPOTHETICAL ENTHYMEME.

Reasoning Proposition. } If PETER *neglect his study*,

Asserting Proposition. } HE will **remain ignorant.**

To which we may add the major hypothesis, to complete the reasoning; thus,

Because, ALL THOSE WHO *neglect their study* will **remain ignorant.**

Or the example may be stated in the order of a syllogism; thus,

ALL THOSE WHO *neglect their study* will **remain ignorant;**
If PETER *neglect his study*,
HE [that is, the said Peter,] will **remain ignorant.**

Now, it may not be true that Peter is one of those who will neglect his study, but it is taken hypothetically to shew, that if the attribute *neglect his study*, forming the middle term, be applicable to Peter, that then, on the ground of the major hypothesis, the attribute *remain ignorant*, forming the major term, will be applicable to Peter also.

The most palpable absurdity indeed, may, with propriety, be conditionally admitted as a minor hypothesis; as,

EXAMPLE IV.

Reasoning Proposition. } If PETER were *immortal*,
Asserting Proposition. } HE [the said Peter] would live for ever.

Now the major hypothesis will be the proper answer to the question *why*; thus,

Because ALL THOSE WHO are *immortal*, live for ever.

And of this number (whether it be true or false) it is admitted, by the particle *if*, that *Peter* is *one*.

B. Are these four, namely, the *causal*, *regular*, *obvious*, and *hypothetical enthymemes*, all the forms of reasoning to be found in language?

C. Yes, all the forms of familiar, simple, complete reasoning, to be found in the English language. There are, indeed, many substitutes for the words *therefore*, *for*, *because*, *as*, and *since*, which I call signs of reasoning: such as, *for this reason*, *hence*, *consequently*, *thus*, *so*, and sometimes *that*, but these substitutes present no difficulty to one who has made some progress in the study; they should, however, be noticed to the learner when they occur in the exercises. A condition in the minor hypothesis is also frequently signified without the particle

if, by placing *were* or *had*, the signs of the copula, before the subject, as in an interrogatory; thus,

EXAMPLE V.

Reasoning Proposition. } Were GOLD *as plentiful as stones*,
Aſserting Proposition. } It would be of as little value.

EXAMPLE VI.

Reaſoning Proposition. } Had LEAD *the properties of gold*,
Aſserting Proposition. } It would resist aqua fortis.

It may, however, be neceſsary here to observe, that it does not always follow, that two propoſitions, one taken conditionally, and the other positively, will form an hypothetical enthymeme, as will appear by the following example:

EXAMPLE VII.

Conditional Proposition. } If I had *leisure*,
Positive Proposition. } I would dedicate much time to study.

Now this is not an act of reasoning, because the attributes which should constitute the major and middle terms are not universal aſsociates, nor universally repugnant to each other; that is to say, because it is not an universal fact that *every* one *who has leisure would or would not dedicate much time to study*. This then is only my particular resolution on a certain condition, grounded, perhaps, on some latent reason.

Hence, it is a neceſsary characteristic, in an hypothetical enthymeme, that the predicate of the conditional proposition, and the predicate of the positive proposition, should be universal aſsociates, or universally repugnant to each other; otherwise the two propositions do not form an act of reasoning.

B. The preceding examples shew an *agreement* between the subject and the predicate of the proposition proved: pray give an example wherein a *repugnance* between a subject and a predicate is exhibited.

EXAMPLE VIII.

SYLLOGISM.

Major Hypothesis. } The *planets* are not **stationary;**

Minor Hypothesis. } MERCURY is a *planet*;

Aſserting Proposition. } Therefore, MERCURY is not **stationary.**

Now here we admit, in the major hypothesis, a repugnance between the middle term *planets*, and the major term *stationary*; and this repugnance is completely universal, for, it signifies the same as to say *no planet is stationary*, or *not one of all the planets is stationary*. Now if the middle term *planet* be applicable to Mercury, as admitted in the minor hypothesis, the major term *stationary* must be repugnant to Mercury, because the two terms *planet*

and *stationary* are first admitted to be universally repugnant to each other. This example may be reduced into the four forms of familiar reasoning; thus,

CAUSAL ENTHYMEME.

Aſserting Proposition: } MERCURY is not **stationary**,
Reasoning Proposition. } Because HE is a *planet*.

Here the major hypothesis is omitted. Sometimes indeed, we aſsign the major hypothesis as a reason, thus:

CAUSAL ENTHYMEME.

Aſserting Proposition. } MERCURY is not **stationary**,
Reasoning Proposition. } Because NO *planet* is **stationary**.

Here we omit the minor hypothesis, *Mercury is a planet*.

REGULAR ENTHYMEME.

Reasoning Proposition. } MERCURY is a *planet*,
Aſserting Proposition. } Therefore, HE is not **stationary**.

Here the major hypothesis is not expreſsed, but understood.

OBVIOUS ENTHYMEME.

Reasoning Proposition. } Since [as, or because] MERCURY is a *planet*,
Aſserting Proposition. } HE is not **stationary**.

HYPOTHETICAL ENTHYMEME.

Reasoning Proposition. } If MERCURY be a *planet*.

Asserting Proposition. } HE is not **stationary**.

B. Pray give an example wherein the middle term is an attribute, and a repugnance between the subject and predicate of the proposition proved is exhibited.

C. In the following example the minor term is an infinitive member, the middle term is an attribute, and a repugnance is exhibited between the minor and major terms.

EXAMPLE IX.

SYLLOGISM.

Major Hypothesis. } THAT WHICH is *vicious* is not **honourable**;

Minor Hypothesis. } TO ENSNARE THE INNOCENT is *vicious*;

Asserting Proposition. } Therefore, TO ENSNARE THE INNOCENT is not **honourable**.

CAUSAL ENTHYMEME.

Asserting Proposition. } TO ENSNARE THE INNOCENT is not **honourable**.

Reasoning Proposition. } Because IT [*i. e.* to ensnare the innocent] is *vicious*.

REGULAR ENTHYMEME.

Reasoning Proposition. } TO ENSNARE THE INNOCENT is *vicious*.

Asserting Proposition. } Therefore, IT [*i. e.* to ensnare the innocent] is not **honourable**.

OBVIOUS ENTHYMEME.

Reasoning Proposition. } Since TO ENSNARE THE INNOCENT is *vicious*,

Asserting Proposition. } IT [*i.e.* to ensnare the innocent] is not **honourable.**

Now let us ask the question *why*, and the major hypothesis will be the proper answer,

Because NOTHING WHICH is *vicious* is **honourable.**

Whenever the subject of either of the propositions of an act of reasoning is an infinitive member, or consists of such a fragment as may be represented by the pronoun *it*, before the predicate, and be literally expressed after it; the proposition may be stated in the mode of single substitution: thus the minor term in the preceding example being an infinitive member, the minor hypothesis and asserting proposition, may be stated in the mode of single substitution; thus,

NOTHING WHICH is *vicious* is **honourable;**
IT is *vicious* TO ENSNARE THE INNOCENT;
Therefore, *IT* is not **honourable** TO ENSNARE THE INNOCENT.

B. Can a proposition, stated in the mode of double substitution enter into an act of reasoning?

C. It may constitute a member of an enthymeme; thus,

EXAMPLE X.

Asserting Proposition. } *IT* has been observed *THAT* [MANY MEN may neglect important duties,]

Reasoning Proposition. } Because THEY are not *masters of sufficient resolution to persevere in their designs.*

The *preponent* and *antepreponent* in the modes of double and treble substitution exhibit some extraneous remark upon the *principal*, respecting its probability, authority, or the like; and, as a remark may be made, in this way, upon any proposition, a preponent may precede each of the propositions of an act of reasoning; thus,

Major Hypothesis. { *IT* is evident *THAT* [THOSE WHO are not *masters of sufficient resolution to persevere in their designs* may* neglect important duties;]

Minor Hypothesis. { [And] *IT* has been observed *THAT* [MANY MEN are not *masters of sufficient resolution to persevere in their designs.*]

Asserting Proposition. } Therefore, *IT* may be concluded *THAT* [MANY MEN may neglect important duties.]

But still the principals only will form the essential members of reasoning, and may be stated without the preponents; thus,

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* It is said by the followers of Aristotle, that reasoning has nothing to do with any other propositions but those which grammarians call indicative, but, that this is not true, appears by the preceding example; and will appear in a great variety of instances in the course of this work.

Major Hypothesis. { THOSE WHO are not *masters of sufficient resolution to persevere in their designs* may **neglect important duties;**

Minor Hypothesis. { MANY MEN are not *masters of sufficient resolution to persevere in their designs;*

Asserting Proposition. { Therefore, MANY MEN may **neglect important duties.**

A special proposition, stated in the mode of double substitution, may form an essential *part* of an attribute, composing the major or middle term; thus,

EXAMPLE XI.

Asserting Proposition. { HENRY THE EIGHTH **endeavoured to procure his children an early introduction to the knowledge of grammar,**

Reasoning Proposition. { Because HE *thought* [*IT was necessary to their education THAT they should be acquainted with the dead languages.*]

Thus the special proposition stated in the mode of double substitution stands between crotchets, and the substitutes are printed in italic capitals.

B. When you have found an enthymeme, that is, an act of reasoning wherein no more than two propositions are expressed, how will you proceed to supply the proposition which is omitted?

C. This will be easily done when we consider that, of the two propositions expreſsed, the asserting proposition must be one, and either the minor or major hypothesis may form the reasoning proposition, as may be seen by recurring to the examples in page 86.

If then the major hypothesis be omitted, as is most commonly the case, take the middle term, which is always the predicate of the minor hypothesis; let it be preceded by the universal sign *all* or *every*, if the middle term has a substantive signification, that is, if it be the sign of a person or a thing, and join thereto by a proper copula the major term; as,

EXAMPLE XII.

Aſserting Proposition. } GREAT BRITAIN is surrounded by water,

Reasoning Proposition. } Because IT is an *island*.

Now here the word *island* is the middle term, and thus the major hypothesis may be formed,

EVERY *island* is surrounded by water.

This then is the major hypothesis.

If the middle term be a personal attribute the universal sign may be *whosoever*, *whoever*, *he who*, *one who*, or, if plural, *those who*: as,

EXAMPLE XIII.

Asserting Proposition. } JULIUS CÆSAR could not be a Briton,

Reasoning Proposition. } Because HE was *born in Italy.*

Now the major hypothesis may be formed thus;

WHOSOEVER [WHOEVER, ONE WHO, or HE WHO,] was *born in Italy* could not be a Briton.

If the attribute forming the middle term be applied to an impersonal subject, the universal sign may be *whatsoever*, *whatever*, *what*, *that which*, *a thing which*, or, if plural, *things which*; as,

EXAMPLE XIV.

Asserting Proposition. } MODERATE EXERCISE is very desirable,

Reasoning Proposition. } Because IT *promotes health.*

WHATSOEVER [WHATEVER, WHAT, or THAT WHICH,] *promotes health* is very desirable.

When the minor hypothesis is omitted, (which very seldom happens, because it renders the language tautologous) take the minor term which is always the subject of the asserting proposition, and join thereto by a proper copula, the subject of the major hypothesis without the universal sign, and thus the minor hypothesis will be formed; for the subject of the major hypothesis is always the middle term.

Let us, for instance, view the twelfth example, in the form of a causal enthymeme, wherein the major hypothesis shall appear as the reason, and the minor hypothesis be entirely omitted; thus,

Aſserting Proposition. } GREAT BRITAIN is surrounded by water,

Reasoning Proposition. } Because EVERY *island* is surrounded by water.

Now here the major hypothesis forms the reasoning proposition. Let us then take the subject of the aſserting proposition, which is always the minor term, and join thereto as a predicate the subject of the major hypothesis, without the universal sign, when the minor hypothesis will be formed thus:

GREAT BRITAIN is an *island*.

The reasoning may now be expreſsed fully; that is, the two conditions on which the proof depends, and the aſsertion proved; thus,

Major Hypothesis. } EVERY *island* is surrounded by water;

Minor Hypothesis. } GREAT BRITAIN is an *island*;

Aſserting Proposition. } Therefore, GREAT BRITAIN is surrounded by water.

B. Please to explain what you mean by a *proper copula*, terms you made use of immediately preceding the twelfth example.

C. Most readily. In the doctrine of propositions, we observed that the copula is either *pure* or *modal*; and this, it would have been unneceſsary to have noticed, had not the distinction been eſsential in the art of reasoning. Let it then be observed, that if the connexion between the *middle* and *major* terms, in the major hypothesis, be *pure*, as in the preceding example, the copula connecting the *minor* and *major* terms in the aſserting proposition must be pure also. If the copula between the *middle* and *major* terms, in the major hypothesis, be *modal*, as in the tenth example, the copula between the *minor* and *major* terms in the aſserting proposition must be *modal* also. Let it also be remarked, that whenever the middle term is an attribute, and two propositions are employed in the composition of the major hypothesis, as in the tenth example, if the copula shewing the connexion between the universal sign and middle term be pure, the copula of the minor hypothesis must be pure also, and *vice versa*. Thus the copula between the universal sign and the attribute composing the middle term, in the tenth example, is *pure* and *repugnant*, and the copula in the minor hypothesis is *pure* and *repugnant* also. The reason of this will be clearly understood when we have amply investigated the structure of reasoning.

B. Have you exemplified all the forms of reasoning which usually occur in language?

C. Yes; I have not been able to discover any other form of *direct*, *complete*, and *simple* reasoning in our language.

B. Pray what do you mean by *direct*, *complete*, and *simple* reasoning?

C. I call the reasoning we have already noticed *direct*, *complete*, and *simple*, in opposition to *indirect*, *elliptical*, and *compound* reasoning.

B. Previous to noticing indirect, elliptical, and compound reasoning, please to give a brief recapitulation, and point out those distinctions which made the fourteen preceding examples necefsary.

C. The first was necefsary as an example to shew a complete act of reasoning, wherein all the component parts are expreſsed, distinguished in different characters, and denominated; and in the first example also the middle term, which must be always general, that is, be common to more than one particular person or thing, is a substantive, namely, *man*, and not an attribute.

In the first example also, is exhibited an agreement between the subject and the predicate of the aſserting proposition; this example, however, I did not think proper to reduce into the four forms of familiar reasoning, because the mind might not, at once, be overloaded by too many distinctions.

The second example was neceſsary to exhibit an instance wherein the three terms consist of more than a single word each; and wherein the middle term or reason neither represents any thing personal or impersonal, but is a general attribute consisting of the following words, *suffers paſsion to supersede his reason.* Now, though these words signify neither a person nor a thing, yet, they compose a personal attribute, which is also general, because it is applicable to many persons. This example was moreover of further use to shew how a complete act of reasoning, stated in the syllogistical order, would be expreſsed when reduced into the four forms of familiar reasoning.

The third, fourth, fifth, sixth, and seventh examples were neceſsary to explain the nature of an hypothetical enthymeme.

The eighth, like the first, is an example wherein the *major*, *middle*, and *minor* terms consist of three single words; but this differs from the first, in as much as the middle term represents an impersonal being and not a *person*, namely, *Mercury*; and instead of an *agreement* between the subject and the predicate of the aſserting proposition, as in the first example, it exhibits a *repugnance*. This example, like the second, is reduced into the four forms of familiar reasoning.

The ninth, like the eighth, exhibits a repugnance in the aſserting proposition, but the middle term is not a substantive, but an attribute, and of course the major hypothesis consists of two propositions. This example was further neceſsary, to exhibit an infinitive member, as the minor term of an act of reasoning, and also to shew how a proposition in the mode of single substitution may form a component member of reasoning.

The tenth and eleventh examples display the manner in which a proposition, stated in the mode of double substitution, may be employed in an act of reasoning.

The twelfth, thirteenth, and fourteenth examples are neceſsary to shew how the proposition omitted in an enthymeme may be supplied.

CHAPTER IV.

OF INDIRECT OR OBLIQUE REASONING.

B. PRAY what do you mean by indirect or oblique reasoning?

C. Indirect or oblique reasoning is a distinction applicable to the four familiar enthymemes only, and not to the syllogism, that is to reasoning wherein we use only two propositions, namely, an *aſserting proposition*, and a *reasoning proposition*.

It has been before hinted, that, when an aſsertion is made in familiar language, if a reason *why* be demanded, we must either adduce the minor or major hypothesis.

EXAMPLE I.

Aſserting Proposition. } PRINCES are unhappy;

Why?

Reasoning Proposition. } Because THEY are *men*.

Here the major hypothesis, *all men are unhappy*, is omitted, and the minor hypothesis shews the reason *why*.

In some rare instances, as we have already observed, the aſserting proposition is stated, and the major hypothesis is offered as a reason; as,

EXAMPLE II.

Aſserting Proposition. } PRINCES are unhappy;

Why?

Reasoning Proposition. } Because ALL *men* are unhappy.

Here the minor hypothesis, *princes are men*, is omitted;* but this sort of reasoning is tautologous, and very seldom practised. It is impoſsible, however, to complete the concatenation without using the minor hypothesis as a reason, as in the first instance, or the major hypothesis, as in the second. It appears also that, though only two propositions are expreſsed, yet, there is a major, middle, and minor term comprised in each example, and the major hypothesis is implied. Now let it be observed, that the minor term, *princes*, forms the whole, or a part of the subject of each proposition. In the first instance, indeed, the word *princes* simply forms the subject of each proposition; as,

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* See Eſsentials of Logic, from page 138 to 140.

EXAMPLE III.

Asserting Proposition. } PRINCES are unhappy;

Reasoning Proposition. } Because THEY [*i. e.* princes] are *men.*

In the second example, *princes* literally forms the subject of the asserting proposition, and will be found to be included in the collective number represented in the subject of the reasoning proposition; thus,

EXAMPLE IV.

Asserting Proposition. } PRINCES are unhappy;

Reasoning Proposition. } Because ALL *men* [among whom princes are comprehended] are unhappy.

Now the minor term must be thus subjected, either singly, or comprehended in a collective number, in every example of reasoning that is not *indirect* or *elliptical.** Hence, it is evident that all the preceding examples in this work are instances of direct reasoning. Very frequently, however, when the propositions consist of more than three words, the minor term, either in the reasoning or asserting proposition, will be taken obliquely; thus,

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* See Essentials of Logic, from page 135 to 140.

EXAMPLE V.

Asserting Proposition. } THE PROUD are disappointed;

Reasoning Proposition. } Because *their schemes of ambition deceive* THEM.

Now here the words, *the proud*, compose the minor term, and they are regularly subjected in the asserting proposition; but in the reasoning proposition, they are represented by the pronoun *them*, at the end of the predicate. Hence I call the reasoning indirect or oblique; but it may be rectified, by subjecting the representative of the minor term in the reasoning proposition; thus,

EXAMPLE VI.

Asserting Proposition. } THE PROUD are disappointed;

Reasoning Proposition. } Because THEY [that is, the proud] are *deceived in their schemes of ambition.*

B. Pray of what use is the distinction of reasoning into *direct* and *indirect*?

C. This is not an artificial division; it is a characteristic which language itself has assumed; it must be pointed out to the learner, that, when such instances occur, he may be able to discover, abstract, and arrange for examination, the three essential parts of reasoning. When the pupil can discover each combination by noticing its characteristics, he will much more easily find the mem-

bers of a proposition, and the component parts of an act of reasoning, than he could posibly do by wading through an undistinguished mass of variety.

B. Please to supply the hypothesis, and state the preceding example fully.

C. Yes.

EXAMPLE VII.

Major Hypothesis. } THOSE WHO are *deceived in their schemes of ambition* are **disappointed**;

Minor Hypothesis. } THE PROUD are *deceived in their schemes of ambition*;

Asserting Proposition. } Therefore, THE PROUD are **disappointed.**

Instances sometimes will occur, especially in familiar conversation, wherein the reasoning proposition is negatively expressed; as

Asserting Proposition. } PETER **endeavours to be a scholar;**

Reasoning Proposition. } Or [else, *or* otherwise,] HE would not *dedicate all his time to study.*

But the reasoning proposition may be rectified; thus,

Asserting Proposition. } PETER **endeavours to be a scholar;**

Reasoning Proposition. } Because HE *dedicates all his time to study.*

B. Please to illustrate the doctrine of indirect reasoning by a few examples, quoted from good authors.

C. The following is a quotation from Shaftesbury, letter the first, concerning enthusiasm:

Aſserting Proposition. } "TRUTH is the most powerful thing in the world;

Reasoning Proposition. } Since *even fiction itself must be governed by* IT."

Here *truth* is the minor term, and is regularly subjected in the aſserting proposition; but, in the reasoning proposition, it is represented by the pronoun *it*, forming a part of the predicate; and part of the predicate itself is subjected. The reasoning proposition may be rectified thus,

Aſserting Proposition. } TRUTH is the most powerful thing in the world;

Reasoning Proposition. } Since [for, or because,] IT must *govern even fiction itself*.

B. Pray how will you proceed, now that the oblique proposition is rectified, to discover the major hypothesis?

C. There is nothing more easy; we have only, as I have before observed, to take the predicate of the reasoning proposition, which is the minor hypothesis, let it be preceded by an universal sign, and join thereto, by a proper copula, the major term; thus,

THAT WHICH, [EVERY THING WHICH, or WHATSOEVER,] must *govern even fiction itself*, is the most powerful thing in the world.

This, then, whether good or bad, is the major hypothesis on which his lordship's conclusion depends; that is, it is taken for granted, that, to whatever the attribute forming the middle term is applicable, the attribute forming the major term may be ascribed also, with truth, the minor term, the attribute forming the middle term is declared agreeable as a minor hypothesis, and, of course, the attribute forming the major term must be finally declared agreeable with truth also.* Here what we noticed page 94, is again exemplified, for the copula exhibiting the agreement between the universal sign and middle term, in the major hypothesis, is *modal*, and, of course, the copula of the minor hypothesis is modal also.

B. Are not the essential members of an act of reasoning sometimes divided by auxiliary or extraneous matter?

C. Very frequently, as in the following example of oblique reasoning, taken from No. 447 of the Spectator.

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* See Essentials of Logic, page 147.

Asserting Proposition. } "THE VOICE OF REASON is **more to be regarded than the bent of any present inclination;**

Reasoning Proposition. } Since [by the rule above-mentioned] *inclination will at length come over to* REASON [though we can never force reason to comply with inclination."]

In the preceding sentence, there is an obvious enthymeme; and the auxiliary or extraneous matter stands between crotchets. The words, *the voice of reason*, form the minor term, and are regularly subjected in the asserting proposition; but, in the reasoning proposition, the word *inclination* is subjected, and the word *reason*, representing the minor term, will be found in the latter part of the predicate. The intervening matter may, however, be discarded, the reasoning proposition rectified, and the example stated in direct order; thus,

Asserting Proposition. } THE VOICE OF REASON is **more to be regarded than the bent of any present inclination;**

Reasoning Proposition. } Since IT will *at length bring inclination over to it.*

B. According, then, to the preceding rules, now the reasoning proposition is rectified, the major hypothesis may be supplied; thus,

THAT WHICH, [or WHATSOEVER] will *at length bring inclination over to it*, is **more to be regarded than the bent of any present inclination.**

C. Yes, this is the major hypothesis, in which, an aſsociation of attributes is admitted, *i. e.* it is taken for granted, that, to whatever the attribute forming the middle term may be ascribed, the attribute composing the major term may be ascribed also; the first, as a minor hypothesis, is ascribed to *the voice of reason*, and of course its aſsociate is applicable to the *voice of reason* also.

B. Will the preceding examples be sufficient to illustrate the doctrine of *indirect reasoning*?

C. I will just add an example, in which both propositions are taken obliquely, and then proceed to another subject.

" *It is an insolence natural to the* wealthy, *to affix, as much as in them lies, the character of a man to his circumstances. Thus it is ordinary with* them *to praise faintly the good qualities of those below* them, *and say it is very extraordinary in such a man as he is, or the like, when* they *are forced to acknowledge the value of him whose lowneſs upbraids their exaltation.*"

Spectator, No. cdlxviii.

The two preceding periods compose an enthymeme; the sign of reasoning is *thus*, signifying *on this account*, or *therefore*. The word *wealthy*, in the reasoning proposition, is literally the minor term, and it is afterwards twice represented by the pronoun *them*, and once by the word *they*, printed in Roman letter. This enthymeme may be rectified thus:

Reasoning Proposition. { THE WEALTHY are *naturally so insolent as to affix as much as in them lies, the character of a man to his circumstances ;*

Asserting Proposition. { Therefore, THEY ordinarily praise faintly the good qualities of those below them, and say it is very extraordinary in such a man as he is, or the like, when they are forced to acknowledge the value of him whose lowness upbraids their exaltation.

CHAPTER V.

OF ELLIPTICAL REASONING.

B. PRAY what do you mean by elliptical reasoning?

C. When the reasoning is perfect, the two conditions and asserting proposition are fully expressed. Now, besides omitting the major or minor hypothesis, which reduces the reasoning to an enthymeme, it is very common also to abridge one of the two propositions composing an enthymeme; as,

EXAMPLE I.

Asserting Proposition. } PUNISHMENT is necessary;

Reasoning Proposition. } Because *good order must be supported.*

B. Is there any ellipsis or defect in the preceding example?

C. Most certainly; but we are so accustomed to abbreviations in familiar language, that we perceive not when they occur. It has been frequently observed, that, where the reasoning is direct, and only two propositions are expreſsed, the same word or words, either literally or by substitution, singly or comprehended in a collective number, must be subjected in each proposition. Now, here it may be observed, that the word *punishment* forms the minor term, and is subjected in the aſserting proposition; but, in the reasoning proposition, it is neither subjected again nor indirectly represented in any part of the predicate, and of course there must be an ellipsis.

B. How will you proceed, then, to discover what words are neceſsary to make the concatenation complete?

C. The proper way is to state the aſserting proposition, and, in order to form the reasoning proposition, insert, after the conjunction *because*, the pronoun *it*, as a substitute for the minor term

punishment, when the deficiency will readily present itself, as will appear in the following example:

Asserting Proposition. } PUNISHMENT is necessary;

Reasoning Proposition. } Because [IT *enforces obedience to*] *good order*, [*which*] *must be supported.*

Thus the concatenation is cuontined, and the words between crotchets, though not expreſsed in familiar language, must be understood to make the sense complete.

B. Of what use can it be to search after a few words omitted, if the meaning be understood?

C. It is most certainly of no importance on ordinary occasions, but, if we wish to enter into the analysis of language, and examine the ground on which each act of reasoning depends, that is, to see distinctly the hypotheses on which an assertion is supported, we must know how to supply such ellipses as are necessary to complete the concatenation.

B. Pray exhibit the major hypothesis understood in the preceding enthymeme.

C. Yes;

WHATSOEVER *enforces obedience to good order, which must be supported*, is necessary.

This is the major hypothesis; and here it is taken for granted, that, wherever the attribute

forming the middle term might be applied, the major term *neceſsary* might be applied also; the first is declared applicable to the word *punishment*, as a minor hypothesis, and to punishment also we must admit that the other is equally applicable.

B. Is elliptical reasoning common?

C. Very common. An act of elliptical reasoning will be found in the following sentence, concluding No. 74 of the Rambler:

EXAMPLE II.

[" *What is read with delight is commonly retained; because pleasure always secures attention,*] *but books which are consulted by occaſional neceſsity, and perused with impatience, ſeldom leave any traces on the mind.*"

Here the words between crotchets compose an act of elliptical reasoning. The concluding part of the sentence forms no part of the reasoning, and is only employed to exhibit a contrast to what is affirmed in the aſserting proposition. This act of reasoning may be re-stated, and the proper supplement inserted: thus,

Aſserting Proposition. } WHAT IS READ WITH DELIGHT IS commonly retained;

Reasoning Proposition. } Becauſe [IT *affords*] *pleasure* [*which*] *always secures attention.*

Thus we behold an aſserting and a reasoning proposition, comprising a major, middle, and minor term; and the minor term, consisting of the words *what is read with delight*, is represented in the reasoning proposition by the pronoun *it*, which, together with the words *affords* and *which*, forms the supplement neceſsary to complete the concatenation. The major hypothesis may now be supplied according to the preceding rules, and thus every member of a perfect act of reasoning will be expreſsed.

Instances will frequently occur, wherein the minor term only, as the subject of one of the two propositions, is omitted; as,

EXAMPLE III.

"*The play of Timon is a domestic tragedy, and therefore strongly faſtens on the attention of the reader.*"

Johnson's Observations on Shakespear's Plays.

Here *the play of Timon*, is the minor term, and this is not expreſsed either literally or by substitution in the aſserting proposition, but a representative is understood, and may be inserted thus:

Reasoning Proposition. } THE PLAY OF TIMON is a *domestic tragedy*;

And

Aſserting Proposition. } Therefore [IT] strongly faſtens on the attention of the reader.

Instances will occur, though not frequently, wherein the minor, and part of the major term will be omitted in the aſserting proposition, and it requires some little attention to supply the defect; as,

EXAMPLE IV.

"*Since death in the end takes from all, whatsoever fortune or force takes from any one; it were foolish madneſs in the shipwreck of worldly things, where all sinks but the sorrow, to save that.*"

Ἐπεα Πτεροεντα, second edition p. 270.

Reasoning Proposition. } Since DEATH *in the end takes from all, whatsoever fortune or force takes from any one;*

Aſserting Proposition. { [IT should **induce us to consider that**] **it were foolish madneſs in the shipwreck of worldly things, where all sinks but the sorrow, to save that.**

B. Is an act of reasoning ever both indirect and elliptical?

C. Yes, frequently; as,

EXAMPLE V.

"*The orthography and etymology, though imperfect, are not imperfect for want of care, but because care will not always be succeſsful, and recollection or information come too late for use.*"

Preface to Johnson's Dictionary.

In this sentence, the aſserting proposition is admitted to be true, and then a reason is stated, on which its truth is declared *not* to depend; after this

another reason is given, on which the asſertion is said to be grounded. The matter may be rectified, and the ellipses supplied thus:

Aſserting Proposition. } THE ORTHOGRAPHY AND ETYMOLOGY are imperfect;

Reasoning Proposition. } Not [because THEY] *want care*,

Reasoning Proposition. } But because [THEY could not be *rendered perfect by*] *care* [*which*] *will not always be succeſsful, and recollection or information come too late for use.**

Sometimes the reasoning propoſition of an enthymeme is elliptical, the language irregular, and stated in the form of an interrogation, comprising extraneous matter; as,

EXAMPLE VI.

"*Of all the sons of vanity,* [*those who swell with the praises which they hear from their own tongues*] *are surely the happiest and greatest; for what is greatneſs or happineſs but independence on external influences, exemption from hope or fear, and the power of supplying every want from the common stores of nature, which can neither be exhausted nor prohibited?*"

Rambler, No. cxciii.

Now here the words between crotchets compose the minor term, and the proposition stated as an interrogatory is certainly a reason, on which the preceding asſertion is grounded. The sign of reasoning is *for*; but it is not poſsible to reduce the proposition into direct order, and complete the concatenation

* See another example of elliptical indirect reasoning, p. 44.

without a supplement, and some such modification of the matter as follows:

Asserting Proposition. { THOSE WHO SWELL WITH THE PRAISES WHICH THEY HEAR FROM THEIR OWN TONGUES are surely the happiest and greatest of all the sons of vanity;

Reasoning Proposition. { For [THEY] *depend not on external influences, [are] exempt from hope or fear, and [poſseſs] the power of supplying every want from the common stores of nature, which can neither be exhausted nor prohibited;*

Extraneous Member. { But, *i. e.* be-out [that, and] what is greatneſs or happineſs?

There are instances to be found, though they are not common, wherein the force of a reason is evident, but it is stated in such crooked, elliptical, and indirect language, that some verbal alteration is absolutely neceſsary to convert it into a regular, major, or minor hypothesis. Such an alteration, however, will not obscure but elucidate the sense; let us view the following instance:

EXAMPLE VII.

"*But, as the excellence of every power appears only in its operations, not to have reason, and to have it useleſs and unemployed, is nearly the same.*"

Rambler, No. clxii.

Here the sign of reasoning is *as*, and the aſserting proposition is regular; now, if we regard the sense of the reasoning proposition only, and not obscure it by endeavouring to imitate the verbal dreſs which the doctor has chosen, the example may be regularly stated; thus,

Reasoning Proposition. { [To have] REASON USELESS AND UNEMPLOYED is [to have] THAT WHICH is not *brought into operation*;

Asserting Proposition. { Therefore, [to have] REASON USELESS AND UNEMPLOYED, is nearly the same as not to have it.

To which the major hypothesis may be added; thus,

[To have] THAT WHICH is not *brought into operation* is nearly the same as not to have it.

This example, let it be observed, differs from every other which has yet occurred; for the attributes composing the major, middle, and minor terms are neither applicable to persons nor things, but are referable to infinitive posſeſsion, signified by the words *to have*, standing between crotchets, and thus the universal sign enters into the minor hypothesis. But still this is not a new species of reasoning, for we may discard all the infinitive members, and abstract the three terms; thus,

Major Term.

Nearly the same as nothing.

Middle Term.

Brought into operation.

Minor Term.

REASON USELESS AND UNEMPLOYED.

And the example may now be exhibited in the usual way; thus,

Major Hypothesis. } THAT WHICH is not *brought into operation* is nearly the same as nothing;

Minor Hypothesis. } REASON USELESS AND UNEMPLOYED is not *brought into operation*;

Aſserting Proposition. } Therefore, REASON USELESS AND UNEMPLOYED is nearly the same as nothing.

B. Is elliptical reasoning ever expreſsed in the mode of single substitution?

C. Yes; as will appear in the following sentence from Johnson's Idler, No. 52.

EXAMPLE VIII.

"*It is certainly more wise, as it is more safe, to stop before he touches the utmost limits, since every step of advance will more and more entice him to go forward, till he shall at last enter into the receſses of voluptuouſneſs, and sloth and despondency close the paſsage behind him.*"

Here, the aſserting proposition being in the mode of single substitution, the pronoun *it*, may be discarded, the real subject of the aſserting proposition aſsumed, and a proper supplement inserted; thus,

Aſserting Proposition. { TO STOP BEFORE HE TOUCHES THE UTMOST LIMITS is certainly more wise, as it is more safe [than to proceed;]

Reasoning Proposition. { Since [IT *may prevent a man from approaching where*] *every step of advance will more and more entice him to go forward, till he shall at last enter into the receſses of voluptuouſneſs, and sloth and despondency close the paſsage behind him.*

Thus the infinitive member, forming the minor term, is subjected in each proposition, and the ellipses are supplied between crotchets.

B. Is elliptical reasoning ever stated in the mode of double substitution?

C. Yes; as is exemplified in the following sentence;

EXAMPLE IX.

"*It is a complaint which has been made from time to time, and which seems lately to have become more frequent that* [*English oratory, however forcible in argument, or elegant in expreſsion, is deficient and inefficacious, because our speakers want the grace and energy of action.*"]

Idler, No. xc.

Here the principal only, standing with the reasoning proposition between crotchets, is eſsential to the reasoning, and the preponent and substitutes compose an extraneous remark upon the fact demonstrated. The eſsential members may be exhibited with the supplement; thus,

Aſserting Proposition. } ENGLISH ORATORY, HOWEVER FORCIBLE IN ARGUMENT, OR ELEGANT IN EXPRESSION, is deficient and inefficacious;

Reasoning Proposition. } Because [IT is *delivered by*] *our speakers* [*who*] *want the grace and energy of action.*

The following period from No. 152 of the Rambler, presents another instance;

EXAMPLE X.

"That, letters should be written with strict conformity to nature, is true, because nothing but conformity to nature can make any composition beautiful or just."

Now here it will appear, that the aſserting proposition is stated in the mode of double substitution, though only one substitute is expreſsed, as is exemplified page 22. Discarding the preponent, then, let us state the principal as an aſserting proposition, and insert a substitute for the minor term after the sign of reasoning, when the words omitted will naturally present themselves; thus,

Aſserting Proposition. } LETTERS should be written with strict conformity to nature;

Reasoning Proposition. { Because [THEY can *represent*] *nothing but* [*i. e.* be-out] *conformity to nature* [*which*] *can make a composition beautiful or just.*

Here the words understood are supplied between crotchets. The particle *but*, according to Mr. Horne Tooke's etymology, in this sense, means *be-out*. Thus the rational concatenation is rendered complete, and the language is perfectly intelligible.

B. Is there any other form of elliptical reasoning which it will be neceſsary to notice?

C. Yes; there is in familiar reasoning a form still more elliptical, wherein nothing but the major

hypothesis is expreſsed, and the reader or hearer is left to supply the minor hypothesis and aſserting proposition. Previous, however, to offering any examples to illustrate this mode of reasoning, I think it neceſsary to make still some further observations on the structure of reasoning.

I have already observed, that, in one kind of reasoning, it is either expreſsed or understood as a major hypothesis, that a substantive, representing a claſs of persons or things, and an attribute are universally agreeable with, or repugnant to each other, either *purely* or *modally*. Now, in this kind of reasoning, the *minor term* is always comprehended in the claſs represented by the *middle term*. If, therefore, the *middle term* be agreeable with the *major term*, the *minor term* must be agreeable with the *major term* also, and *vice versa*. This is the reason why the copula between the *middle* and *major* terms in the major hypothesis, and the *minor* and *major* terms, in the aſserting proposition, must be of the same kind, as observed page 94. Thus the *minor* term *Peter*, is comprehended in the *middle* term *man*, and, as the attribute *mortal* is declared by a *pure* copula to belong to the whole claſs of mankind, it must be ascribed to Peter by a *pure* copula, when singled out from the multitude. From these remarks it may be observed, that if there were no general terms there could be no reasoning; for, if the middle

term *man* only represented one particular being, it could not comprehend the minor term, and we could only aſsert, without reasoning, that Peter is *mortal*.

Now, whenever a middle term or reason consists of a common noun, or a fragment conveying a nominal signification, the immediate representative of some claſs of beings, it must, as the subject of the major hypothesis, comprehend every person or thing to which that denomination is common, even though the sign *all*, *every*, *no*, or *not*, be omitted; and the minor hypothesis must be a congenial proposition, because it must shew that the minor term is a being comprehended in the claſs signified by the middle term; as,

Major Hypothesis. } *Man* is subject to disappointment;

Minor Hypothesis. } PETER is a *man*;

Aſserting Proposition. } Therefore, PETER is subject to disappointment.

Now here the minor hypothesis is a congenial proposition, and *man*, to whom *disappointment* is attributed in the major hypothesis, must mean *every man*, or else Peter, though a man, may be one excepted, and not liable to the attribute comprising the major term. And if the term *man* were applicable only to one individual, it could not form a reason, that is, *represent* a claſs of beings in which the minor term Peter is comprehended.*

* See Eſsentials of Logic, page 87.

Let us now view the word *man* as a middle term or reason, comprehending the whole clafs of mankind, in an example where each and every man is excluded, from, or declared repugnant to, the major term, to shew that the attribute composing the major term is repugnant to an individual represented by the minor term.

EXAMPLE XI.

Major Hypothesis. } NO *man* is **omnipotent;**

Minor Hypothesis. } CÆSAR was a *man;*

Afserting Proposition. } Therefore, CÆSAR was not **omnipotent.**

Thus the minor hypothesis is a congenial proposition, and the word *man*, as the middle term or reason in the major hypothesis, signifies *every man*, or *all men*, without exception, who are excluded from the application of the attribute *omnipotent* by the particle *no*, for it signifies the same as saying, that no one *of all mankind is omnipotent*; and this is neceſsary, for, if every one were not excluded, Cæsar, the minor term, may not be liable to the exclusion, and the reasoning would be consequently uncertain. Thus, then, it appears, that universality must always be implied, and if words were not general, that is, applicable to more than one individual person or thing, there could be no reasoning.

Sometimes, indeed, an infinitive member, representing an action, or paſsion, will have a substantive signification, and be aſsigned as a reason, but still it must be in some degree general; as,

EXAMPLE XII.

Major Hypothesis. } *To do good* is laudable;

Minor Hypothesis. } TO AFFORD COMFORT TO THE UNFORTUNATE is *to do good;*

Aſserting Proposition. } Therefore, TO AFFORD COMFORT TO THE UNFORTUNATE is laudable.

Even here it may be observed, that the middle term is general and universal; for every good action is comprehended, and of course, with the rest, the special action, *to afford comfort to the unfortunate*, composing the minor term. Thus every middle term or reason must be general, and when it represents a person or a thing, it must comprehend all the persons or things subject to that general denomination. But most commonly the middle term or reason will be found to consist only of a general attribute, referable either to persons or things; and it is admitted in the major hypothesis, that where one attribute is, there another attribute which is its universal aſsociate, will also be found. Or, when the attributes are repugnant to each other, it is admitted, in the major hypothesis, that where one is there the other cannot be.

Whenever the middle term appears as an attribute, the major hypothesis, as we have already observed, consists of two propositions, and the first copula shews the kind of connexion between the *universal sign* and *middle term*, and the second exhibits the kind of connection between the *middle term* and *major term*. Now, in this sort of reasoning, it is not the middle term, but the *universal sign*, which comprehends the minor term; for the middle term, being an attribute, can comprehend nothing. The same kind of copula, therefore, as joins the universal sign to the middle term, must join the minor to the middle term, in the minor hypothesis, whether *pure*, *modal*, *congenial*, or *repugnant*, as we have already remarked page 94. From what has been remarked, it follows, that whenever the reason or middle term has a substantive signification, the minor hypothesis must be always a congenial proposition; but when the middle term is an attribute, the minor hypothesis may be either a congenial proposition, as in the second example, or repugnant, as in the tenth example of the third chapter.*

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* It was owing to a total ignorance of this kind of reasoning by attributes, and of propositional analysis, that so grofs an error exists in what is called Aristotle's Special Rules of the First Figure of a Simple Syllogism, wherein it is said, that, "In the first figure, the minor pro-

An attribute forming the middle term, is preceded, in the major hypothesis, by the universal signs *whosoever*, *whoever*, *he who*, *those who*, *every one who*, *persons who*, or *no one who*; *whatsoever*, *whatever*, *things which*, *every thing which*, *nothing which*, or the like, when the attribute composing the middle term is referable to persons or things; and *whensoever*, *whenever*, or *when*; *wheresoever*, *wherever*, or *where*, when the attribute composing the middle term is referable to time or place; as,

EXAMPLE XIII.

WHOSOEVER, [WHOEVER, or HE WHO] *expects universal applause* will be disappointed.

Now here it is taken for granted, that where the attribute *expects universal applause* is applicable, there the attribute *disappointed* is applicable also, and when the mind has within its view, from previous reading or conversation, an individual to whom the attribute *expects universal applause* is applicable, it would certainly be superfluous to ex-

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proposition must always be *affirmative*." Now, this is only true where the middle term has a substantive signification: but the reasoning by attributes is a thousand times more prevalent, and when we reason by attributes, it is as common to find the minor proposition a *negative*, in the first figure, as an *affirmative*. Thus, example the tenth, chapter the third, is in the *first figure*, and the minor proposition is *negative*. Many similar instances may be found in the further progress of this work.

preſs the minor hypothesis and aſserting proposition, and say,

SUCH A PERSON *expects universal applause;*
Therefore, SUCH A PERSON will be **disappointed.**

The mind, indeed, can as readily supply these two members in this mode of reasoning as it does the major hypothesis in an enthymeme, where no more than a reasoning and an aſserting proposition are expreſsed. Again, suppose a person were reading or conversing concerning the character of Cardinal Wolsey, and it was said, that,

EXAMPLE XIV.

NO ONE WHO, [or NO PERSON WHO] was *fond of the splendor of equipage, and the acquisition of power,* could **bear with any tolerable fortitude a sudden gripe of adversity.**

In this hypothesis, a repugnance of attributes is admitted, and there is no difficulty in perceiving that the attribute composing the middle term is applicable to Cardinal Wolsey, as a minor term, and of course the attribute composing the major term must be repugnant to the Cardinal. Now this being understood, it would surely be unneceſsary to add, that

CARDINAL WOLSEY was *fond of the splendor of equipage and the acquisition of power,*

And,

Therefore, CARDINAL WOLSEY could not **bear with any tolerable fortitude a sudden gripe of adversity.**

Sometimes two or more attributes are declared agreeable or repugnant, with reference to time or place, which time or place usually forms a part or the whole of the minor term.

Suppose we beheld a fruit tree cut down while in blossom, and its foliage fading in consequence, and it was said,

EXAMPLE XV.

WHENEVER a *tree is cut down* its foliage begins to fade.

Now, if we subjoin the minor hypothesis, and say,

YESTERDAY this *tree was cut down* ;

It surely would be unnecessary to add the asserting proposition, and say,

Therefore, YESTERDAY its foliage began to fade.

Again: in an observation concerning war in any particular country, if it were said, that,

EXAMPLE XVI.

WHEREVER *war rages*, calamity will be found;

It would certainly be superfluous to add, that,

IN GERMANY *war rages*;

Therefore, IN GERMANY calamity will be found ;

Since this is sufficiently known to the reader or hearer, by previous intimation, which renders such tedious repetition unnecessary.

It should, however, be observed, that when the minor term represents *time* or *place*, the propositional matter, both in the minor hypothesis and asserting proposition, will be necessarily deranged to shew the parts of reasoning distinctly. Thus the proper order and division of the reasoning propositions in the fifteenth and sixteenth examples would be as follows:

This tree was cut down yesterday;
War rages in Germany.

But this conversion of the matter, it will be seen, is necessary to an obvious and orderly display of the parts of reasoning.

Now, in the whole practice of mankind, there can be no other modes of reasoning than the two we have just noticed; namely, first, that wherein an attribute or attributes forming the major term are declared in the major hypothesis, agreeable with, or repugnant to every person or thing subject to the general denomination, which forms the *middle term*, to shew that one or more individuals, signified by the *minor term*, must also be agreeable with, or repugnant to the said attribute or attributes, because the said individual or individuals are subject to the said general denomination: and, secondly, that wherein we admit, in the major hypothesis, an

universal agreement or an universal repugnance between two or more general attributes, in order to shew that where one is, there the other must be; or, when they are repugnant to each other, to shew that where one is there the other cannot be found. And all the forms of simple reasoning that I have ever discovered, (even when, for distinction's sake, we admit of a difference between the *obvious*, *regular*, and *causal enthymemes*,) do not exceed six; namely, the *causal*, *regular*, *obvious*, and *hypothetical enthymemes*; the reasoning by *major hypothesis* alone; and the *syllogism*. The reasoning by major hypothesis alone is the most elliptical, (there being only a middle and major term expreſsed,) but it is the most prevalent of all other forms of reasoning. It is thus men reason when they are said to treat a subject generally, not descending to particulars; but when this sort of reasoning is exercised by a skilful orator or writer, the allusions are sufficiently clear. This sort of reasoning occurs occasionally in parliamentary debate, and is sometimes employed with admirable effect. But when the object intended as a minor term is not understood by the readers or audience; *i.e.* when the object alluded to is not known, a series of general hypotheses becomes dull and uninteresting. Now, as a proper knowledge of this sort of reasoning is of the utmost importance to every

speaker and writer, and will give a man a decided advantage over another of equal abilities who is unacquainted with it, I will endeavour to illustrate it by a few quotations from the Rambler:

EXAMPLE XVII.

" MEN WHO [*i. e.* ALL THOSE WHO, or WHOEVER] have *flattered themselves into this opinion of their own abilities* look down on all who waste their lives over books, as a race of inferior beings condemned by nature to perpetual pupilage, and fruitlessly endeavouring to remedy their barrenness by incessant cultivation, or succour their feebleness by subsidiary strength."

Rambler, No. cliv.

Now it will be seen, by recurring to the passage, that Dr. Johnson intends the attribute composing the middle term to apply to " *the wits of these happy days*," as a minor term, which he mentions in the paragraph preceding the above sentence; and, if the attribute composing the middle term be applicable to *the wits of these happy days*, the attributes composing the major term must be applicable to *the wits of these happy days* also, because the two attributes are declared associates in the hypothesis.

In the second paragraph following, the doctor states another major hypothesis, the middle term of which is certainly intended to apply also to *the wits of these happy days*, as a minor term; thus,

EXAMPLE XVIII.

"A MAN, [or WHOSOEVER is] *elated by confidence in his natural vigor of fancy and sagacity of conjecture*, soon concludes that he already poſſeſſes whatever toil and enquiry can confer."

Now it would surely be needleſs to add, that,

THE WITS OF THESE HAPPY DAYS are *elated by confidence in their natural vigor of fancy and sagacity of conjecture;*

Therefore, THE WITS OF THESE HAPPY DAYS soon conclude that they already poſſeſs whatever toil and enquiry can confer.

It is moreover very common to state a series of major hypotheses, without ever expreſsing, or even hinting at the minor term, that is, the person or thing, time or place, to which they may be applicable, this being left entirely to the reader or hearer.

In fact, every universal proposition,* that is, every proposition whose subject is the characteristic sign of a whole claſs, or whose subject consists of an universal sign and general attribute, may be considered as an act of elliptical reasoning, though sometimes, even when the writer or speaker has a particular object in view, it is not easy to discover what minor term is referred to. Such propositions

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* See Eſſentials of Logic, page 63.

may be offered as a series of universal truths; but, as I have before observed, when no particular minor term is perceived by the reader or audience, the matter will be very uninteresting. It is for this reason, I presume, that, after a series of major hypotheses, an ingenious writer will sometimes introduce a fictious name as a minor term, in order to interest the reader to attend to his instruction.

The following quotation, from No. clxii of the Rambler, will present us with three major hypotheses immediately following each other, for each of which the reader will find no difficulty in supplying a minor term, to which the attributes composing the middle terms are applicable or repugnant:

EXAMPLE XIX.

"NO *man* can safely do that by others which he might do by himself."

Now, to any male of the age of maturity the middle term *man* is applicable, and of course to no such person is the attribute composing the major term applicable. The doctor continues, thus;

EXAMPLE XX.

"HE THAT *indulges negligence* will quickly becom ignorant of his own affairs."

Now, I have little doubt but the reader will find within the circle of his own acquaintance one who *indulges negligence*, and to him, if the hypothesis be good, the major term is also applicable. "And," says the doctor,

EXAMPLE XXI.

"HE THAT *trusts without reserve*, will at last be deceived."

Some also may be found who *trust without reserve*; and all such, if the hypothesis be admitted, will be liable also to the attribute composing the major term.

In the same page the doctor continues to reason with the major hypothesis only; thus,

EXAMPLE XXII.

"WHEN men *feel weakneſs increaſing on them*, they naturally deſire to reſt from the ſtruggles of contradiction, the fatigue of reaſoning, the anxiety of circumſpection."

The attributes in this hypothesis refer to time;* and at that time when the first attribute, namely, the middle term, is applicable, the train of attributes composing the major term, if the hypothesis be admitted, will be applicable also.

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* See another example, page 55, beginning, "When a man shuts himself up," &c.

After this the doctor concludes thus:

EXAMPLE XXIII.

"WHEN they [*i. e.* old men] are *hourly tormented with pain*, they are seldom able to bear any new disturbance, and consider all opposition as an addition to misery, of which they feel already more than they can patiently endure."

Now, whenever the first attribute is applicable, the second attribute is applicable also, and that identical point of time will form the minor term.

In a subsequent paragraph of the same number, the doctor has introduced, for the sake of illustration, the fictious, though characteristic name of *Thrasybulus*, as a minor term, and thus, in a sort of anecdote, applies, and renders interesting his general reasoning, fixing in his detail the points of time which form the minor terms of the two preceding examples. Thus do writings abound with this kind of reasoning in almost every page.

For further examples, see the following numbers of the Rambler:—Period 2, Paragraph 2, No. clxiv. Period 1, Paragraph 1. Period 3, Paragraph 2. Period 2, Paragraph 3, No. cxciii.

It will, indeed, be useless to refer to any more particular instances, since similar examples may be found in almost every paragraph, which is not employed in narrative, throughout that celebrated work.

CHAPTER VI.

OF FAMILIAR COMPOUND REASONING.

B. WHAT is familiar compound reasoning?

C. What I call familiar compound reasoning, is an enthymeme which may be reduced into two or more acts of reasoning; as,

Reasoning Proposition. } If PETER should *suffer because he has deliberately committed a crime*,

Asserting Proposition. } HE deserves no pity.

Now, the reasoning proposition of this hypothetical enthymeme is an act of reasoning of itself, and may be abstracted and distinguished; thus,

Asserting Proposition. } If [*i. e.* give or grant that] PETER should suffer,

Reasoning Proposition. } Because HE has *deliberately committed a crime*.

This I call the *binary compound*, and its characteristic is, that the reasoning proposition of the enthymeme forms one or more acts of reasoning of itself.

Now, by adding a reason to the aſserting proposition of the preceding example, there will appear an hypothetical enthymeme, consisting of an aſserting and a reasoning proposition, each of which will be also an act of reasoning of itself; as,

Reasoning Proposition. } If PETER should *suffer because he has deliberately committed a crime*,

Aſserting Proposition. } HE deserves no pity, because he shews no marks of penitence.

This example, by admitting positively the conditional proposition, may be reduced; thus,

Aſserting Proposition. } PETER should suffer,

Reasoning Proposition. } Because HE has *deliberately committed a crime.*

And,

Aſserting Proposition. } HE deserves no pity,

Reasoning Proposition. } Because HE *shews* no *marks of penitence.*

This I call the *trinal compound*, and its characteristic is, that each member of the enthymeme forms one or more acts of reasoning of itself. The inferior act of reasoning comprised in one or both of these component parts I call an *auxiliary enthymeme.* The *trinal compound* occurs but seldom, and requires no further exemplification; but the *binary compound* is frequently employed, especially in debate, and deserves particular attention. Let us, then, view the following quotations;

Auxiliary Causal Enthymeme.

" I think the public debt is the heaviest burden on the constitution ;

For I *consider every hundred pounds of it as a perpetual mortgage in the hands of the crown, capable of being perverted to the most corrupt purposes of influence or oppreſsion* ;

And,

Aſserting Proposition.

Therefore, I would ſacrifice much to be relieved from it."

Mr. Sheridan, Parliamentary Debate, Friday, July 10, 1789.

Here the two first propositions form a complete causal enthymeme, and, collectively, they form a reason on which the final aſserting proposition is grounded, as will appear by taking the whole in the order of a causal enthymeme ; thus,

Aſserting Proposition.

I would ſacrifice much to be relieved from the public debt ;

Reasoning Proposition.

Because I *think it is the heaviest burden on the constitution* ; [and] *I consider every hundred pounds of it as a perpetual mortgage in the hands of the crown, capable of being perverted to the most corrupt purposes of influence or oppreſsion.*

Thus the example, as first stated, forms, collectively, what we call a regular enthymeme, the reasoning proposition of which is of itself a causal enthymeme ; and, as stated in the second place, it forms, collectively, a causal enthymeme, with two middle terms, connected by the conjunction *and*, standing between crotchets.

The following is an example exactly similar to the last :

Auxiliary Causal Enthymeme.

"I think that lowering the duties, so as to deprive the smuggler of all chance of continuing the traffic with any degree of success, is rather too hazardous an experiment to be ventured upon;

Because [I am *aware, that*] *the revenue already derived from tobacco is too considerable in the amount to be lightly given up;*

Asserting Proposition.

Therefore, I have chosen the less dangerous mode of changing the duty from the customs to the excise, and of applying the additional check of the excise survey."

Mr. Pitt, Parliamentary Debate, Tuesday, June 16, 1789.

Thus, now the ellipsis is supplied, the example may be converted into one causal enthymeme, as in the preceding instance.

Now, as a familiar act of reasoning may be expressed either in the order of a causal, obvious, regular, or hypothetical enthymeme, so the *binary compound* will assume a different appearance according to the order in which the auxiliary enthymeme, forming its reasoning proposition, may be stated. In the first example the reasoning proposition forms a causal enthymeme, but it being preceded by the particle *if*, the whole of the auxiliary enthymeme is evidently taken conditionally,

and is not divided into two lines, but stands in Italic as a middle term. The reasoning propositions of each of the preceding examples also form causal enthymemes, but they are taken positively, and not conditionally. This, then, is the only difference between the first and the two subsequent examples, as will appear by re-stating the first example, and taking the whole of the auxiliary enthymeme positively, distinguished into two lines; thus,

Auxiliary Causal Enthymeme. { PETER suffers,
Because HE has *deliberately committed a crime*;

Asserting Proposition. } Therefore, HE deserves no pity.

Thus, the three examples of the *binary compound* exactly correspond with each other.

Let us now view the first example, when the reasoning proposition, forming the auxiliary member, is converted into an hypothetical enthymeme; thus,

Auxiliary Hypothetical Enthymeme. } If PETER has *deliberately committed a crime*,
HE should suffer;

Asserting Proposition. } [And] therefore HE deserves no pity.

Now this has quite the appearance of a new compound, but the only difference is in the form of the auxiliary enthymeme.

There are still two other modes of arrangement in which the *binary compound* sometimes appears,

especially in colloquial reasoning. These I will endeavour to illustrate, and, for the sake of variety, introduce a different example, which the reader may readily transpose into all the preceding orders:

Aſserting Proposition. } A PRUDENT MAN will never hazard his fortune upon the iſsue of a single game;

Auxiliary Enthymeme. { Because [for, as, *or* since] HE may be reduced to poverty,
If HE *happens to be unfortunate*.

In this example the aſserting proposition of the auxiliary enthymeme is preceded by the sign of reasoning, *because*, and the reasoning proposition of the auxiliary enthymeme by the conditional sign, *if*. But most commonly the conditional sign immediately follows the sign of reasoning, and the reasoning proposition of the auxiliary enthymeme is taken parenthetically; thus,

Aſserting Proposition. } A PRUDENT MAN will never hazard his fortune upon the iſsue of a single game;

Auxiliaty Enthymeme. { Because, (if HE *happens to be unfortunate*,)
HE may be reduced to poverty.

The following sentence, delivered by Mr. Pitt, in the House of Commons, on Monday the 8th of March, 1790, is a *binary compound*, wherein the aſserting proposition is indirect, and the reasoning propositions comprise two auxiliary enthymemes:

> " *The natural impreſsion which this* [*petition of Captain Williams*] *at firſt made on my mind, was to agree to enter upon the enquiry; because, if the petitioner was innocent, he ought to be acquitted, and if guilty, he deſerved the ſeverest punishment the law could inflict.*"

Let us, then, rectify the aſserting proposition, supply the ellipses, and distinguish the example in the order in which it was delivered; thus,

At first,

Aſserting Proposition. } THIS [petition] **made the natural impreſsion on my mind, to agree to enter upon the enquiry;**

Reasoning Proposition. } Because [IT *induced me to think that*] *if the petitioner was innocent, he ought to be acquitted;*

Reasoning Proposition. { And [because IT *induced me to think that*] *if* [*the petitioner was guilty,*] *he deserved the severest punishment the law could inflict.*

Thus, here appears an aſserting proposition followed by two reasoning propositions, in each of which an hypothetical enthymeme is comprised. This, perhaps, will be better demonstrated by the following statement:

[THE PETITION *induced me to think that*]

Hypothetical Enthymeme } If THE PETITIONER was *innocent*,
HE ought to be **acquitted;**

And,

Hypothetical Enthymeme. { If THE PETITIONER was *guilty*,
HE **deserved the ſeverest punishment the law could inflict.**

At first,

Aſserting Proposition. } Therefore, IT **made the natural impreſsion on my mind to agree, to enter upon the enquiry.**

The words neceſsary to complete the concatenation, supplied in the two reasoning propositions, evidently offend the ear, for one of the chief characteristics of elegance in language is brevity.

Now, it is clear, that these auxiliary enthymemes form one reason, on which the aſserting proposition is grounded, as will appear by taking the enthymemes with the supplement, as one middle term; thus,

Aſserting Proposition. { THE PETITION made the natural impreſsion on my mind, to agree to enter upon the enquiry;

Reasoning Proposition. { Because IT *induced me to think that if the petitioner was innocent, he ought to be acquitted, and if guilty, he deserved the severest punishment the law could inflict.*

These are all the modes in which I have ever seen this compound arranged; it will frequently, indeed, like all other forms of reasoning, be found elliptical and indirect, and its members sometimes divided by parenthetical or extraneous matter, but this endleſs variety it would be impoſsible to exemplify. Nothing will enable the student to supply ellipses, to rectify oblique language, and to discover the eſsential members of reasoning, when divided by extraneous matter, but a competent knowledge of propositional analysis; and this can only be acquired by exercising on a variety of

subjects. I have been particular in explaining the *binary compound*, because it is an useful combination, and occurs very frequently in oratorical reasoning.

B. Do any other compounds occur in familiar reasoning?

C. Yes; the next I call the *alternate compound*; it is generally abridged in familiar language; thus,

Reasoning Proposition. } SHAKESPEAR'S PLAYS are *universally admired*;

Aſserting Proposition. } If, therefore, THEY are not **ingenious productions**
THEY must have **obtained a falſe reputation.**

In this example, the major hypothesis, which is not expreſsed, comprehends an alternative; to demonstrate this, I will exhibit all the parts implied and expreſsed; thus,

Major Hypothesis. { EVERY PLAY WHICH is *universally admired*, must either be **an ingenious production,** or must have **obtained a falſe reputation.**

Minor Hypothesis. } SHAKESPEAR'S PLAYS are *universally admired*,

Aſserting Proposition. { Therefore, SHAKESPEAR'S PLAYS must either be **ingenious productions,** or must have **obtained a falſe reputation.**

Or, it is to the same effect, if we expreſs the aſserting proposition in the manner it was first stated; thus,

Aſserting Proposition. } If, therefore, THEY are not **ingenious productions,**
THEY must have **obtained a falſe reputation.**

Here, it will be observed, is but one middle term, and one minor term, but there are two major terms stated in opposition to each other, with one of which the minor term must be declared agreeable, according to the major hypothesis; and thus the reasoning is evidently redundant, for the example may be divided into two distinct acts of reasoning. It will be neceſsary here to observe, that when there are either two major terms, as in the preceding example, or two minor terms, the aſserting proposition may be divided into two parts, as above stated, one taken conditionally and the other positively; this we shall have occasion again to remark hereafter.

The characteristic of the alternate compound is, that a choice of two major terms is offered in the major hypothesis. It may not be improper also to observe, that, when the *alternate compound* is used, there is sometimes a reason added finally to determine the choice respecting which of the major terms shall be adopted; as,

Reasoning Proposition. } SHAKESPEAR'S PLAYS are *universally admired*;

Aſserting proposition. } If, therefore, THEY are not **ingenious productions,**
THEY have **obtained a falſe reputation.**

Asserting Proposition. } *THIS*, however, seems improbable;

Reasoning Proposition. { Because THEY have been *esteemed by foreigners, when translated into different languages, and have stood the test of ages.*

Thus, by the acquisition of these component members, the example is enlarged, and the alternative decided. When it assumes this character, I call it the *alternate compound determined.*

Now, it is proper to view the example and observe how these three acts of reasoning are combined.

The major hypothesis does not affirm that *plays which are universally admired* are either *ingenious productions*, or that *they have obtained a false reputation*, but only admits, that one or the other of these opposite attributes must be an associate with *plays*, to which the middle term is applicable; so that the admission of one of the major terms to be agreeable with the minor term, *Shakespear's plays*, will be constantly a reason for the exclusion of the other. This will appear sufficiently evident in the following reduction:

If [*i. e.* give *or* grant that] SHAKESPEAR'S PLAYS are ingenious productions;

And it will follow, from the major hypothesis, that,

THEY have not obtained a false reputation.

If [*i. e.* give or grant that] SHAKESPEAR'S PLAYS are not **ingenious productions**;

And then it will follow, from the major hypothesis, that,

THEY have **obtained a false reputation**;

But,

THIS **seems improbable**;

What seems improbable?

IT **seems improbable** *THAT* [SHAKESPEAR'S PLAYS **should have obtained a false reputation**;]

Why?

Because THEY have been *esteemed by foreigners, when translated into different languages, and have stood the test of ages.*

Thus the words, *this seems improbable*, or *it seems improbable*, have the effect of a preponent denying the probability of the agreement of the minor term with *one* of the major terms, on the authority of the reason finally assigned to direct the choice; and thus the probability of its agreement with the *other* major term is fully implied.

The next combination which we shall examine, I call *the compound of equality*; it is thus abbreviated in familiar conversation:

Aſserting Proposition. { If PETER be **legally competent to the disposal of his own property,**
JOHN must be **competent** [also;]

Reasoning Proposition. { Because THEY have [both] *reached the years of majority.*

Here are two minor terms, one major term, and one middle term. Now, there being two minor terms, namely, *Peter* and *John*, the aſserting propoſition is divided into two parts, ſhewing, that on condition the major term be applicable to one of the minor terms, it must be equally applicable to the other; because they both agree with the attribute composing the middle term. The whole of the major term is expreſsed in the first instance; but, when applied to *John*, in the second, to avoid tautology, the word *competent* is substituted for *legally competent to the disposal of his own property.*

The two conditions and aſsertion proved may be fully expreſsed; thus,

Major Hypothesis. { WHOSOEVER has *reached the years of majority* is **legally competent to the disposal of his own property;**

Minor Hypothesis. { PETER has, / And, / JOHN has, } or, { PETER / And / JOHN } have, { *reached the years of majority;*

Therefore Aſsert, Propo. { PETER is, / And, / JOHN is, } or, { PETER / And / JOHN } are, { **legally competent to the disposal of their own property.**

Or, the aſserting proposition may be divided into two parts; one taken conditionally, and the other positively, as in the first statement.

Now, this example may be divided into two distinct acts of reasoning, by applying the major and middle terms to the minor terms, *Peter* and *John*, separately. But this can never happen, even though there be two minor terms, except the middle term will apply to each minor term both collectively and individually.

In the following instance there are two minor terms, and the aſserting proposition may be divided into two parts, one taken conditionally, and the other positively, as in the preceding example; but still it is not a compound, because the middle term applies to the two minor terms collectively, and not individually; thus,

Aſserting Proposition. } If GOOD SENSE be desirable,
} MODESTY must be desirable also;

Reasoning Proposition. } Because THEY *are accomplishments which mutually enhance the value of each other.*

Thus, the middle term, in this example, applies to the two minor terms collectively, and not individually; this, therefore, is not a compound, for, though the minor term is composed of two distinct parts, namely, *good sense* and *modesty*, they do not apply individually, but compose one compound whole.

Sometimes the *compound of equality* will consist of two middle terms, two minor terms, and one major term; an instance of this kind occurs in the preface of this work, in the following words:

Aſserting Proposition.
- If *IT* be neceſsary TO UNDERSTAND THE DIFFERENCE BETWEEN ONE WORD AND ANOTHER,
- *IT* is [also] neceſsary TO UNDERSTAND THE DIFFERENCE BETWEEN ONE PROPOSITIONAL COMBINATION AND ANOTHER;

Reasoning Proposition. Because
- WORDS are *the parts of which propositions are composed;*
- And,
- PROPOSITIONS are *the parts of which a discourse is composed.*

Here the minor terms are infinitive members, and the aſserting proposition is stated in the mode of single substitution. The parts of this compound may be expreſsed fully; thus,

Major Hypothesis.
- To know *the parts of which propositions are composed,*
- And,
- To know *the parts of which a discourse is composed,*

are [equally] neceſsary.

Minor Hypothesis.
- TO UNDERSTAND THE DIFFERENCE BETWEEN ONE [WORD] AND ANOTHER, is to know [*the parts of which propositions are composed;*]
- And,
- TO UNDERSTAND THE DIFFERENCE BETWEEN ONE [PROPOSITIONAL COMBINATION] AND ANOTHER, is to know [*the parts of which a discourse is composed.*]

Aſserting Proposition. } Therefore, { TO UNDERSTAND THE DIFFERENCE BETWEEN ONE WORD AND ANOTHER, And, TO UNDERSTAND THE DIFFERENCE BETWEEN ONE PROPOSITIONAL COMBINATION AND ANOTHER, } are [equally] neceſsary.

Or, the aſserting proposition may be divided into two parts, as first stated in the mode of single substitution; thus,

If, therefore, *IT* be neceſsary TO UNDERSTAND THE DIFFERENCE BETWEEN ONE WORD AND ANOTHER,

IT is [equally] neceſsary TO UNDERSTAND THE DIFFERENCE BETWEEN ONE PROPOSITIONAL COMBINATION AND ANOTHER.

Thus, it appears, that, though our familiar abbreviations be exceedingly short, all these conditions must be understood; and no man can detect the fallacy of another; that is, exhibit distinctly the particular conditions wherein the fallacy is concealed, and bind his opponent down to a sort of mathematical proof, who is unacquainted with propositional analysis.

In order to shew what part of the preceding example we commonly expreſs, I have distinguished, between crotchets, in the minor hypothesis, the words employed in the reasoning proposition of the familiar abridgment. Thus it appears that we use the

aſserting proposition, divided into two parts, expreſsed in the mode of single substitution, as above stated: of the middle term we only employ the attributes which, in the full example, are ascribed to *infinitive knowledge* and *infinitive understanding*; and of the minor terms, the term *words* only is preserved in one instance, and the term *propositions*, for *propositional combination*, in the other.

In the mathematics, indeed, the compound of equality is constantly employed. It is certain, that the relations between one numerical combination and another are all equally true and indisputable, and, when comprehended, appear much more distinct to the view of the mind, than moral, or intellectual relations; but still it is neceſsary frequently to aſsume a simple relation, to which the mind is accustomed, and can view with ease, to prove, that the relations between combinations more complicated and remote, bear the same proportion to each other; and thus an abridgment of the compound of equality is employed;

Aſserting Proposition. { If NINE be the third OF TWENTY-SEVEN, THIRTY-ONE must be the third OF NINETY-THREE;

Reasoning Proposition. { Because, THEY *bear the same proportion to each other, as one does to three.*

This example may be expreſsed fully; thus,

Major Hypothesis. { NUMBERS WHICH *bear the same proportion to each other, as one does to three,* must be [equally] thirds ;

Minor Hypoth. { NINE, AND TWENTY-SEVEN, / And, / THIRTY-ONE, & NINETY-THREE, } *bear the same proportion to each other, as one does to three.*

Assert. Propo. { Therefore, { NINE, AND TWENTY-SEVEN, / And, / THIRTY-ONE, & NINETY-THREE, } are [equally] thirds.

Or, the aſserting proposition may be divided into two parts, as stated in the first instance.

The extraneous words, shewing the equality, with which the major term applies; are placed between crotchets.

The characteristic of the compound of equality is, that two or more minor terms are declared equally agreeable with, or repugnant to one major term.

B. Are there other compounds which you do not call familiar?

C. Among a number of unmeaning fabrics in ancient logic, denominated compound syllogisms, there are two structures which deserve particular attention; first, because, though they are not often used regularly in familiar language, yet, they are composed of those familiar forms of reasoning which have never before been distinguished, and which it is the particular object of this work to ex-

plain; and, secondly, because, with some small deviation, they sometimes are found; and, when properly understood, may be used with great force and elegance.

B. Pray what are these compounds?*

C. One is called the *epichirema*, and the other the *dilemma*.

B. Please to exemplify them.

C. The following is a regular example of the *epichirema*:

Major Hypothesis. } THAT WHICH *retards the progress of trade* is **ruinous to Great Britain;**

[Because IT *deprives the labourer of the usual means of support*, and *diminishes the source of the revenue.*]

Minor Hypothesis. } WAR *retards the progress of trade,*

[For IT *interrupts the exportation of manufactured articles;*]

Asserting Proposition. } Therefore, WAR **is ruinous to Great Britain.**

This structure is nothing more than a syllogism wherein the major and minor hypotheses form each a causal enthymeme.

The additional members are placed between crotchets, and may be abstracted; when a simple syllogism only will remain.

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* See Essentials of Logic, page 172.

By uniting the middle terms, however, an epichirema may be reduced into one causal enthymeme; thus,

WAR is ruinous to Great Britain;

Because IT *retards the progress of trade, deprives the labourer of the usual means of support, interrupts the exportation of manufactured articles, and diminishes the source of the revenue.*

B. Pray give an example of the dilemma.

C. Yes.

1. HE WHO WRITES ON GENERAL TOPICS must either *support popular prejudices*, or *oppose them*;

2. If HE *supports them*, [*i. e.* popular prejudices,]

3. HE will be condemned [by the intelligent;]

4. If HE *opposes them*, [*i. e.* popular prejudices,]

5. HE will be condemned [by the ignorant;]

6. Therefore, HE WHO WRITES ON GENERAL TOPICS will be condemned.

In this compound there are three distinct acts of reasoning. The first is the reasoning proposition, and the sixth is the asserting proposition of what we call a regular enthymeme. These, namely, the first and the sixth, may be abstracted from the four intermediate propositions, and exhibited with the major hypothesis; thus,

WHOSOEVER either *supports popular prejudices*, or *opposes them*, will be **condemned**;

HE WHO WRITES ON GENERAL TOPICS must either *support popular prejudices*, or *oppose them*;

Therefore, HE WHO WRITES ON GENERAL TOPICS will be **condemned**.

Now, there are here two distinct middle terms of opposite signification; and, it may be observed, that one consists of the attribute *support popular prejudices*, and the other of the attribute *oppose popular prejudices*. The four intermediate propositions compose two hypothetical enthymemes, one shewing the consequence to be *condemnation*, supposing the minor term to agree with one of the middle terms, and the other shews that, if the minor term agrees with the other middle term, still *condemnation* will be its afsociate; because both the middle terms are admitted to be universal afsociates with the major term in the major hypothesis. Now each of these enthymemes is supported upon its own respective major hypothesis; since, besides the attribute *condemned*, composing the major term of the regular enthymeme, each has an additional fragment explaining the means by which condemnation will be applied; and, to distinguish these fragments, I have placed them between space rules. In order, however, to prevent all pofsible mistakes respecting the analysis of this compound,

let us state the three aſserting propositions separately, and ask the question *why*, in order to discover the reason on which each aſsertion is grounded, and then add, finally, the major hypothesis to each, when we shall find, that not only the aſserting and reasoning propositions are different from each other, but also, that the aſsertions depend upon different conditions; as,

FIRST.

Aſserting Proposition. } HE WHO WRITES ON GENERAL TOPICS will be condemned;

Why?

Reasoning Proposition. } Because HE must either *support popular prejudices*, or *oppose them*;

And,

Major Hypothesis. } ALL THOSE WHO either *support popular prejudices*, or *oppose them*, will be condemned.

SECOND.

Aſserting Proposition. } HE WHO WRITES ON GENERAL TOPICS will be condemned by the intelligent;

Why?

Reasoning Proposition. } Because [it is admitted by the particle *if* that] HE *supports popular prejudices*;

And,

Major Hypothesis. } ALL THOSE WHO *support popular prejudices* will be condemned by the intelligent.

THIRD.

Asserting Proposition. } HE WHO WRITES ON GENERAL TOPICS will be **condemned by the iguorant;**

Why ?

Reasoning Proposition. } Because, [it is admitted by the particle *if*, that] HE *opposes popular prejudices ;*

And,

Major Hypothesis. } ALL THOSE WHO *oppose popular prejudices* will be **condemned by the ignorant.**

There is another mode of exhibiting the dilemma, wherein an hypothetical enthymeme, with two major terms in opposition to each other, is first stated ; then follows a causal enthymeme, shewing that the *minor term* cannot agree with one of the *major terms* ; after this another causal enthymeme shews that the *minor term* cannot agree with the other *major term* ; and finally an assertion is made supported by an union of the two middle terms of the causal enthymemes ; thus,

HYPOTHETICAL ENTHYMEME.

Reasoning Proposition. } If THE PRINT REPRESENTING THE DEATH OF GENERAL WOLFE does not *measure exactly eighteen inches and a half, by twenty-three and a half, exclusive of the margin,*

Asserting Proposition. } IT must be **bigger** or **less.**

FIRST CAUSAL ENTHYMEME.

Now,

Aſserting Proposition. } It cannot be **bigger**;

Reasoning Proposition. { Because, IT *was engraved on a plate which measured just nineteen inches by twenty-four, including a quarter of an inch of margin.*

SECOND CAUSAL ENTHYMEME.

And,

Aſserting Proposition. } It cannot be **leſs**;

Reasoning Proposition. { Because, IT was *fitted by a frame just nineteen inches by twenty-four, allowing a quarter of an inch of margin*;

Final Aſserting Proposition. { Therefore, the PRINT must **measure exactly eighteen inches and a half, by twenty-three and a half.**

Now, here the final aſserting proposition is grounded on an union of the two preceding middle terms, as will appear by re-stating it, and asking the question; thus,

THE PRINT must **measure exactly eighteen inches and a half, by twenty-three and a half**;

Why?

Because, IT was *engraved on a plate which measured just nineteen inches by twenty-four, including a quarter of an inch of margin*, and was *fitted by a frame just nineteen inches by twenty-four, allowing a quarter of an inch of margin.*

If the reader wishes to view all the parts expreſsed and implied in this example, he may state each of the four aſserting propositions separately, and ask the question *why*, when the answer to each will form the reasoning proposition; and finally, he may add to each its respective major hypothesis, as in the reduction of the first example, and thus reduce the compound into four distinct acts of reasoning, in which every component part will be expreſsed.

B. Are there any other general rules in the praxis of logic which requires exemplification?

C. No; I think the rules which have been given, with the additional remarks accompanying the following quotations, will embrace every combination in our language.

B. With what intention do you give the following quotations?

C. I offer them to shew that the preceding praxis is not a theoretical fabric, but a practical system, built upon, and comprehending all, the characteristics of language; and to direct the student how he may proceed to distinguish and arrange the subjects on which he may have an occasion to exercise.

CHAPTER VII.

GENERAL EXERCISES.

EXERCISE I.

RAMBLER, No. CXXI.

PERIOD I.

"*IT is very natural for young men to be vehement, acrimonious,*
"*and severe.*"

ANALYSIS.

For young men to be vehement, acrimonious, and severe, is **very natural.**

OBSERVATION.

This sentence is a proposition stated in the mode of single substitution. In the analysis, I have discarded the substitute *it*, and have assumed the proper subject in its place. The predicate, printed in black letter, may be distinguished by drawing two lines underneath the words with a pen.

PERIOD II.

" For as they seldom comprehend at once all the consequences of a position, or perceive the difficulties by which cooler and more experienced reasons are restrained from confidence, they form their conclusions with great precipitance."

ANALYSIS.

YOUNG MEN **form their conclusions with great precipitance;**

Because THEY *seldom comprehend at once all the consequences of a position, or perceive the difficulties by which cooler and more experienced reasoners are restrained from confidence.*

OBSERVATION.

In the text, it will be observed, that the minor term, *young men*, is represented in both propositions by the pronoun *they*, but in the aſserting proposition of the analysis I have resumed the proper minor term. The sign of reasoning in the text is *for as*, but, for these words, in the analysis, I have substituted the conjunction *because*. Thus, the analysis is a complete causal enthymeme, and the learner may distinguish the parts, by drawing a double line under the major term, printed in black letter; a single line under the middle term, printed in Italics; and a single line over the minor term, and the pronoun *they*, its representative, printed in small capitals.

PERIOD III.

" *Seeing nothing that can darken or embarraſs the question, they expect to find their own opinions univerſally prevalent, and are inclined to impute uncertainty and heſitation to a want of honeſty, rather than of knowledge.*"

ANALYSIS.

THEY [*i. e.* YOUNG MEN] **expect to find their own opinions univerſally prevalent,** and are **inclined to impute uncertainty and heſitation to a want of honeſty, rather than of knowledge ;**

[Because THEY] *see nothing that can darken or embarraſs the queſtion.*

OBSERVATION.

This period also, it appears, is an act of reasoning. The three terms may be distinguished, as we have before observed, by making a double score under the major term; a single score under the middle term, and a single score over the minor term. The language is elliptical, and the supplement, in the analysis, will be found between crotchets. The major hypothesis, in this and in the preceding act of reasoning, is an admiſsion of an agreement between the attributes forming the major and middle terms.

PERIOD IV.

" *He who adopts the ſentiments of another, whom he has reaſon to believe wiſer than himſelf, is only to be blamed when he*

claims the honors which are not due but to the author, and endeavours to deceive the world into praise and veneration; for to learn is the proper busineſs of youth, and whether we increase our knowledge by books or by conversation, we are equally indebted to foreign aſsistance."

ANALYSIS.

1. He is only to be blamed,
2. Who adopts the sentiments of another,
3. [whom] he has reason to believe wiser than himself,

When

4. He claims the honors,
5. Which are not due,

But [*i. e.* be-out]

6. [What is due] to the author;

And [when]

7. [He] endeavours to deceive the world into praise and veneration;

For,

8. To learn is the proper business of youth,

And whether

9. We increase our knowledge by books or by conversation,
10. We are equally indebted to foreign aſsistance.

OBSERVATION.

Each of the two periods preceding this I have endeavoured to distinguish, in the analysis, without regarding the special propositions that may be employed in the formation of any component mem-

ber. Of this period, however, (it being somewhat complicated) I have exhibited distinctly, in the analysis, every special proposition. The pronoun *whom*, between space rules, at the beginning of the third proposition, evidently belongs to the predicate; it might, indeed, have been placed subsequent to the subject; thus,

He has reason to believe whom wiser than himself;

but such a collocation wounds the English ear. The eighth proposition, though the substitute is not expreſsed, is evidently in the mode of single substitution. The words between crotchets are substitutes for some of the ellipses. The first seven propositions collectively compose one act of reasoning by major hypothesis only, in which no particular minor term is referred to. The matter of the major hypothesis may be exhibited; thus,

Major Hypothesis. { HE WHO *adopts the sentiments of another whom he has reason to believe wiser than himself*, is only to be blamed when he claims the honors which are not due but to the author, and when he endeavours to deceive the world into praise and veneration.

Now, since *blame* is aſcribed *only* when the said *claims* and *endeavours* are manifested, it is implied, though not expreſsed, that *no blame is at-*

tached to any one who adopts the sentiments of another whom he has reason to believe wiser than himself, when no *claims* to honors, nor *endeavours* to deceive, are offered. To prove the truth of this *implied aſsertion*, the doctor offers, in the eighth proposition, an elliptical reason, and the sign of reasoning is *for*. The proposition implied, and the reason aſsigned, may be stated in the order of a causal enthymeme: thus,

A YOUTH is not to be blamed when he adopts the sentiments of another whom he has reason to believe wiser than himself;

[Because HE *pursues*] *his proper buſineſs*, [*which*] *is to learn.*

"*And*," continues the doctor, to strengthen the reason aſsigned, "*whether we increase our knowledge by books or by conversation, we are equally indebted to foreign aſsistance.*"

PERIOD V.

"*The greater part of students are not born with abilities to construct systems, or advance knowledge; nor can have any hope beyond that of becoming intelligent hearers in the schools of art, of being able to comprehend what others discover, and to remember what others teach.*"

ANALYSIS.

A greater part of students are not born with abilities to construct systems, or advance knowledge; nor can have

any hope beyond that of becoming intelligent hearers in the schools of art, of being able to comprehend what others discover, and to remember what others teach.

OBSERVATION.

This sentence being a general compound proposition, consisting of one subject and several distinct predicates, needs no comment.

PERIOD VI.

"*Even those, to whom providence hath allotted greater strength of understanding, can expect only to improve a single science.*"

ANALYSIS.

Even,

Those, (to whom providence hath allotted greater strength of understanding) can expect only to improve a single science.

OBSERVATION.

This is a general proposition, and in the composition of the subject of which, the special proposition, standing between parentheses, is employed. The words *to whom*, in the subordinate proposition, though they precede the subject, are nevertheleſs a part of the special predicate.

PERIOD VII.

"*In every other part of learning, they must be content to follow opinions which they are not able to examine; and even in that*

which they claim as peculiarly their own, can seldom add more than some small particle of knowledge, to the hereditary stock devolved to them from ancient times, the collective labour of a thousand intellects."

ANALYSIS.

They must be content, in every other part of learning, to follow opinions

|which| they are not able to examine;

And

They can seldom add in that [part of learning] (|which| they claim as peculiarly their own) more than some small particle of knowledge to the hereditary stock devolved to them from ancient times, the collective labour of a thousand intellects.

The preceding period is two general propositions, connected by the conjunction *and*, the predicate of the first comprises the special subordinate proposition immediately preceding the particle *and*. The predicate of the second proposition also comprises a special subordinate proposition, standing between parentheses. The pronoun *which*, though placed between space rules at the beginning of each special proposition, forms a part of each special predicate.

EXERCISE II.

GIBBON's DECLINE of the ROMAN EMPIRE, Vol. ii. p. 208, 209.

PERIOD I.

"*The exact balance of two religions continued but a moment; and the piercing eye of ambition and avarice soon discovered, that the profeſsion of Christianity might contribute to the interest of the present, as well as of a future life.*"

ANALYSIS.

The exact balance of two religions **continued but a moment**;

And

The piercing eye of ambition and avarice **soon discovered** *THAT*

The profeſsion of Christianity might **contribute to the interest of the present, as well as of a future life.**

OBSERVATION.

This sentence consists of two general propositions connected by the conjunction *and*; the order of the first is regular and obvious; the predicate of the second comprises a subordinate proposition which is indicated by the particle *that*, in Italic capitals, immediately preceding it.

PERIOD II.

"*The hopes of wealth and honors, the example of an emperor, his exhortations, his irresistible smiles, diffused conviction among the venal and obsequious crowds which usually fill the apartments of a palace.*"

ANALYSIS.

The hopes of wealth and honors, the example of an emperor, his exhortations, his irresistible smiles,
diffused conviction among the venal and obsequious crowds
Which usually fill the apartments of a palace.

OBSERVATION.

This period is a general compound proposition, there being four distinct subjects; and the general predicate comprises an incident proposition, which appears distinctly at the conclusion of the analysis.

PERIOD III.

"*The cities which signalized a forward zeal, by the voluntary destruction of their temples were distinguished by municipal privileges, and rewarded with popular donations; and the new capital of the east gloried in the singular advantage, that Constantinople was never profaned by the worship of idols.*"

ANALYSIS.

The cities were distinguished by municipal privileges, and
rewarded with popular donations;

Which signalized a forward zeal by the voluntary destruction of their temples;

And

The new capital of the east gloried in the singular advantage, *THAT*

Constantinople was never profaned by the worship of idols.

OBSERVATION.

This division consists of two general propositions connected by the conjunction *and*. The subject of the first comprises an incident proposition, which, in the analysis, immediately precedes the conjunction; and, in the predicate of the last, will be observed a subordinate proposition represented by the particle *that*, standing in Italic capitals.

PERIOD IV.

"*As the lower ranks of society are governed by imitation, the conversion of those who poſseſsed any eminence of birth, of power, or of riches, was soon followed by the dependent multitude.*"

ANALYSIS.

THE CONVERSION OF THOSE WHO POSSESSED ANY EMINENCE OF BIRTH, OF POWER, OR OF RICHES, was soon followed by the dependent multitude;

[Because IT *influenced*] *the lower ranks of society* [*which*] *are governed by imitation.*

OBSERVATION.

This period is an act of elliptical reasoning. The sign of reasoning in the text is *as*, for which, in the analysis, I have substituted *because*, this word, with the pronoun *it*, the representative of the minor term, and part of the attribute composing the middle term, is placed between crotchets.

PERIOD V.

"*The salvation of the common people was purchased at an easy rate, if it be true that, in one year, twelve thousand men were baptized at Rome, besides a proportionable number of women and children; and that a white garment, with twenty pieces of gold, had been promised by the emperor to every convert.*"

ANALYSIS.

THE SALVATION OF THE COMMON PEOPLE was purchased at an easy rate,

If *IT be* true *THAT*,

Twelve thousand men, besides a proportionable number of women and children, were baptized at Rome in one year;

And *THAT*

A white garment, with twenty pieces of gold, had been promised by the emperor to every convert.

OBSERVATION.

There is in this period, it appears, first, a simple proposition affirming an agreement between a sub-

ject and a predicate in the common mode of expreſsion. Then follows a compound proposition, stated hypothetically in the mode of double substitution. The hypothetical proposition, of which the *principal* is compound, is aſsigned as a reason to prove the truth of the first simple proposition; or, in other words, is offered as a reason to shew why "The salvation of the common people was purchased at an easy rate." The sense of this combination, which is only a conditional proof that *the purchase was made at an easy rate*, would have been as fully expreſsed without the *preponent*, had the particle *if* been placed immediately preceding the *principal*.

To exhibit this act of reasoning, in any regular form, it is neceſsary to aſsume the term *emperor*, he being the proper agent, as a minor term, and to rectify the language of both propositions, when it may be stated without the preponent; thus,

If the EMPEROR [*induced*] *twelve thousand men, besides a proportionable number of women and children, to be baptized at Rome in one year, by the promise of a white garment, and twenty pieces of gold, to every convert*;

HE purchased the salvation of the common people at an easy rate.

Here we behold a fair statement of this act of reasoning, in the order of an hypothetical enthy-

meme, with a short supplement between crotchets, and those who are inclined may form the major hypothesis, according to the rules given page 91; but every one will not, perhaps, be inclined to admit that this major hypothesis is an indisputable proposition; or that the author seriously considered the middle and major terms as universal asſociates.

PERIOD VI. and VII.

"*The powerful influence of Constantine was not circumscribed by the narrow limits of his life, or of his dominions. The education which he bestowed on his sons and nephews secured to the empire a race of princes, whose faith was still more lively and sincere, as they imbibed, in their earliest infancy, the spirit, or at least the doctrine of Christianity.*"

ANALYSIS.

THE POWERFUL INFLUENCE OF CONSTANTINE was not circumscribed by the narrow limits of his life, or of his dominions.

[Since IT was *greatly extended by the*] *education that he bestowed on his sons and nephews* [*which*] *secured to the empire a race of princes,*

THE FAITH OF WHOM was still more lively and sincere,

As, or because [IT was *imbibed*] *in their earliest infancy* [*by embracing*] *the spirit, or at least the doctrine of Christianity.*

OBSERVATION.

These two periods form two acts of reasoning. The first period regularly forms an aſserting pro-

position, followed, without any sign of reasoning, by an indirect elliptical reasoning proposition, ending with the word *princes*, which appears rectified with a proper supplement in the analysis. Then, without any interruption, a second aſserting proposition follows, to which another indirect elliptical reasoning proposition is subjoined by the sign *as*, and appears rectified with a supplement in the analysis.

EXERCISE III.

PARR's IRENOPOLIS, p. 11, 12.

PERIOD I.

"*It may be said that you are not forbidden to meet by the laws of the land, and therefore, that your meeting is irreproachable—I admit the fact, but deny the consequence.*"

ANALYSIS.

IT may be said *THAT*

You are not forbidden to meet by the laws of the land,

And

Therefore, [*IT* may be said] *THAT*

Your meeting is irreproachable—

admit the fact,

But I

[I] deny the consequence.

OBSERVATION.

In this sentence there is a regular enthymeme, in which the reasoning proposition is indirect; both the propositions composing the enthymeme are stated in the mode of double substitution; the preponent and one of the substitutes, indeed, are omitted, in the text, before the aſserting proposition, but I have inserted them between crotchets, in the analysis. In one of the two propositions which conclude the period, the doctor admits the truth of the reasoning proposition, and, in the other, denies the truth of the aſserting proposition. If we abstract the act of reasoning, which the doctor means to combat, from the substitutes, preponents, and the two final propositions, it may be stated in the order of a causal enthymeme; thus,

YOUR MEETING is irreproachable;
Because IT is not *forbidden by the laws of the land.*

Now, the major hypothesis here is a supposed universal agreement between the attributes forming the middle and major terms; or, in other words, it is presumed, that, *whatever is* not *forbidden by the laws of the land, is* ir-*reproachable.* But this is not true, for there are many things, (as the doctor afterwards observes) which the laws do not forbid, and yet they are reproachable. " I admit the

fact," says the doctor, that is, I admit the minor hypothesis, which is, that *your meeting is not forbidden by the laws of the land*, but "I deny the consequence," which is, that the major term *irreproachable*, is appllicable to the minor term *your meeting*; and this must be denied, because the major and middle terms are not universal associates. Thus the fallacy, as is commonly the case, is found to be in the major hypothesis.

PERIOD II.

"*A good man, doubtleſs, will not do any thing which the law interdicts.*"

ANALYSIS.

Doubtleſs,

A *good man* will not do any thing

|which| the law interdicts.

OBSERVATION.

This is an act of reasoning by major hypothesis only, and if the middle term, *a good man*, be applicable to any one of the persons to whom the doctor alludes, the major term, *do any thing which the law interdicts*, must be repugnant to him. This proposition includes in its predicate a special proposition, beginning with the word *which*, between space rules. The word *which*, though placed

first, is evidently a part of the predicate. The term *doubtleſs*, though called an adverb, has the effect of a special proposition in the nature of a preponent, and is applicable, not exclusively, either to the subject or the predicate, but is an extraneous remark upon the whole proposition. This may be exemplified by stating the matter generally in the mode of double substitution; thus,

IT is doubtleſs, *THAT*

A *good man* will not do any thing which the law interdicts.

PERIOD III.

"*But will he, therefore, do every thing which the laws have not interdicted?*"

ANALYSIS.

But,

Will he, therefore, do every thing

[which] the laws have not interdicted?

Or,

Will A GOOD MAN do every thing which the laws have not interdicted;

Because HE will not *do any thing which the law interdicts?*

OBSERVATION.

This interrogatory comprises, in its predicate, a special subordinate proposition; and it is demanded whether the attribute composing the general

predicate of the third period is applicable to every one, to whom the general predicate of the second period is repugnant; that is, whether so palpable an absurdity as the following proposition can be admitted as a major hypothesis.

WHOSOEVER will not *do any thing which the law interdicts*, will do every thing which the laws have not interdicted.

Now, if this hypothesis were to be admitted, as the attribute composing the middle term is evidently repugnant to *a good man*, the attribute composing the major term must be applicable to a *good man*. But this hypothesis is not good, as the doctor sufficiently demonstrates in many subsequent periods.

PERIOD IV.

"*Will he not consider that there is a spirit, as well as a letter even in human laws?*"

ANALYSIS.

A spirit, as well as a letter, is existent even in human laws;

Will he [*i. e.* a good man] not consider *THAT?*

Or,

Will he not consider *THAT*

A spirit, as well as a letter, is existent even in human laws?

OBSERVATION.

Here, it will be seen, that the word *existent*, in the analysis, is substituted for the word *there*, in the text, and this is always its proper signification when it precedes the verb, and causes the nominative case to be taken after the verb, as in the present instance. Now, the first proposition, as stated in the analysis, is special, for it forms a part of the predicate of the second proposition, and is represented by the relative *that*, in Italic capitals, as appears in the second statement. The design of this period is to shew the absurdity of admitting, as an hypothesis, the proposition stated nearly at the beginning of the last page.

PERIOD V.

"*Will he, without discrimination and without restriction, infer the tacit approbation of persons who framed, or persons who administer laws, from the mere absence of direct and specific prohibition?*"

ANALYSIS.

Will he infer, without discrimination and without restriction,
from a mere absence of direct and specific prohibition,
the tacit approbation of persons

Who framed [the laws?]

Or,

[Will he infer, without discrimination, &c. the tacit approbation] of persons

Who administer laws?

OBSERVATION.

This sentence consists of two general interrogatory propositions, connected by the particle *or*, and, in the predicate of each, a special incident proposition is comprised; its design, like the former period, is to expose the absurdity of the preceding hypothesis.

PERIOD VI.

"*Will he forget that an external action may sometimes be accompanied by motives and effects, which, if the law-giver had foreseen them, would have met with the most pointed reprobation?*"

ANALYSIS.

Will he **forget** *THAT*

An external action may be **accompanied sometimes by motives** and **effects**

Which would have **met with the most pointed reprobation,**

If the law-giver had **foreseen them?**

OBSERVATION.

This period is one general proposition, and also tends to shew the absurdity of the preceding hypothesis. The particle *that*, in Italic capitals, represents all the remaining part of the sentence, consisting of three special propositions, which are employed in the formation of the general predicate, the last of which is taken hypothetically.

PERIOD VII.

"*Instead of rejoicing that penalties are not instituted of such a kind as to become equally snares to the harmleſs, and checks upon the forward, will he* [*i. e. a good man*] *convert the caution or the lenity of the law-giver into an occasion of disturbing that order, the preservation of which is the supreme and avowed object of law itself?*"

ANALYSIS.

Will he **convert the caution** or **the lenity of the law-giver into an occasion of disturbing that order,** (the preservation of which is **the supreme** and **avowed object of law itself**) **instead of rejoicing** *THAT*

Penalties are not **instituted of such a kind as to become equally snares to the harmleſs,** and **checks upon the forward?**

OBSERVATION.

This is still a further exposition of the absurdity of the same hypothesis. The period consists of one general proposition, comprising in its predicate two special subordinate propositions; the first is taken parenthetically, and the second is represented by the relative *that*, standing in Italic capitals. After exhibiting, forcibly, in nine subsequent sentences, the fallacy of the hypothesis alluded to, the doctor concludes the section thus:

PERIOD VIII.

"*Upon all these subjects human laws hold out to us little light, they impose upon us few restrictions, and yet, upon right apprehensions of these subjects, and upon the conformity of our actions to those apprehensions, depend our comfort, our reputation, our most precious interests in this world, and our dearest hopes in that which is to come.*"

ANALYSIS.

Human laws **hold out to us little light upon all these subjects;**

They **impose upon us few restrictions;**

And yet

Our comfort, our reputation, our most precious interests in this world, and our dearest hopes in that (which is **to come**) **depend upon right apprehensions of these subjects,** and **upon the conformity of our** actions to **those apprehensions.**

OBSERVATION.

This period consists of three general propositions. The two first precede the words *and yet*, and the third, which follows, is compound, and comprises within its general subject an incident proposition standing between parentheses.

EXERCISE IV.

THE LETTERS OF JUNIUS, Letter the First.

PERIOD I.

"*The ruin or prosperity of a state depends so much upon the administration of its government, that, to be acquainted with the merits of a ministry, we only need observe the condition of the people.*"

ANALYSIS.

The ruin *or* prosperity of a state **depends so much upon the administration of its government,** *THAT*

We only need observe the condition of the people, to be acquainted with the merits of a ministry.

OBSERVATION.

This is one general proposition comprising a subordinate proposition in its predicate, which is indicated by the relative *that*, standing in Italic capitals.

PERIOD II.

"*If we see them obedient to the laws, prosperous in their industry, united at home, and respected abroad, we may reasonably presume that their affairs are conducted by men of experience, abilities, and virtue.*"

ANALYSIS.

If WE *see them* [*i. e. the people*] *obedient to the laws, prosperous in their industry, united at home, and respected abroad,*

WE may reasonably presume that their affairs are conducted by men of experience, abilities, and virtue.

OBSERVATION.

This sentence is an hypothetical enthymeme; and, by admitting positively the agreement between the minor and middle terms, which is taken conditionally by the particle *if*, it may be transposed into all the other forms of reasoning. It may moreover be observed, that, though not distinguished in the analysis, the aſserting proposition comprises a subordinate proposition represented, or indicated by the relative *that*.

PERIOD III.

"*If, on the contrary, we see an universal spirit of distrust and diſsatisfaction, a rapid decay of trade, diſsentions in all parts of the empire, and a total loſs of respect in the eyes of foreign powers, we may pronounce, without hesitation, that the government of that country is weak, distracted, and corrupt.*"

ANALYSIS.

On the contrary,

If WE *see an universal spirit of distrust and diſsatisfaction, a rapid decay of trade, diſsentions in all parts of the*

empire, and a total loss of respect in the eyes of foreign powers,

We may pronounce, without hesitation, that the government of that country is weak, distracted, and corrupt.

OBSERVATION.

This is also an hypothetical enthymeme, exactly similar to the last example, comprising also a subordinate proposition in the asserting proposition, represented by the particle *that*. The words, *on the contrary*, have the effect of an extraneous conjunction, uniting the two periods, and signifying, at the same time, the contrast between them.

PERIOD IV.

"*The multitude in all countries are patient to a certain degree.*"

ANALYSIS.

The multitude in all countries are patient to a certain degree.

OBSERVATION.

This period needs no comment.

PERIOD V.

"*Ill-usage may rouse their indignation*, and *hurry them into excesses, but the original fault is in government.*"

ANALYSIS.

Ill-usage may rouse their indignation, and hurry them into excesses,

But

The original fault is in government.

OBSERVATION.

This period consists of two general propositions, and the matter stands so perfectly in order that comment is unnecessary.

PERIOD VI.

"*Perhaps there never was an instance of a change, in the circumstances and temper of a whole nation, so sudden and extraordinary as that which the misconduct of ministers, has, within these few years, produced in Great Britain.*"

ANALYSIS.

Perhaps

An instance of a change in the circumstances and temper of a whole nation never was existent, so sudden, and extraordinary, as that [change]

[which] the misconduct of ministers has produced within these few years in this country.

OBSERVATION.

This is one general proposition, comprising, in its predicate, a subordinate proposition. The word *there*, which, in the text, displaces the subject,

is represented, in the analysis, by the word *existent*. The pronoun *which*, though placed first, between space rules, in the analysis, to avoid obscurity, is evidently a part of the predicate of the special proposition. The word *perhaps*, may be considered as a substitute for a special proposition or preponent, signifying a doubt of its truth.

PERIOD VII.

"*When our gracious sovereign ascended the throne, we were a flourishing and contented people.*"

ANALYSIS.

We were a **flourishing** and **contented people,**

When

Our gracious sovereign **ascended the throne.**

OBSERVATION.

This is a general proposition, including a special proposition in its predicate. The period, collectively, forms an universal proposition, or an act of reasoning, by major hypothesis, and the point of time,* in which our gracious sovereign ascended the throne, will form the minor term; as,

WHEN *our gracious sovereign ascended the throne*, we were a **flourishing and contented people;**

ON THE 25th OF OCTOBER, 1760, *our gracious sovereign ascended the throne;*

Therefore, ON THE 25th OF OCTOBER, 1760, we were a **flourishing and contented people.**

See pages 126, 127.

PERIOD VIII.

" If the personal virtues of a king could have insured the happineſs of his subjects, the ſcene could not have altered ſo entirely as it has done."

ANALYSIS.

If THE PERSONAL VIRTUES OF A KING could have *insured the happineſs of his subjects,*

[THEY would have prevented] the ſcene from altering ſo entirely as it has done.

OBSERVATION.

This ſentence is an hypothetical enthymeme, wherein the aſſerting propoſition is elliptical and indirect; in the analyſis a ſupplement is inſerted, and the language is rectified, ſo that the example may now be transpoſed into the other three forms of familiar reaſoning; or, by ſupplying the major hypotheſis according to the preceding rules, it may be ſtated in the order of a ſyllogiſm.

PERIOD IX.

" The idea of uniting all parties, of trying all characters, and diſtributing the offices of ſtate by rotation, was gracious and benevolent to an extreme, though it has not yet produced the many ſalutary effects which were intended by it."

ANALYSIS.

The idea of uniting all parties, of trying all characters, *and* of diſtributing the offices of ſtate by rotation, was gracious and benevolent to an extreme;

Though
It has not yet produced the many salutary effects
Which were intended by it.

OBSERVATION.

This period consists of two general propositions, connected by the particle *though*. The whole of the first proposition is represented by the pronoun *it*, and forms the subject of the second proposition. The second proposition comprises an incident proposition in its predicate.

PERIOD X.

"*To say nothing of the wisdom of such a plan, it undoubtedly arose from an unbounded goodness of heart, in which folly had no share.*"

ANALYSIS.

To say nothing of the wisdom of such a plan,
Undoubtedly,
It arose from an unbounded goodness of heart,
[In which] folly had no share.

OBSERVATION.

This is one general proposition, at the beginning of which there is an infinitive fragment, which is a substitute for a general proposition, signifying, *I mean to say nothing of the wisdom of such a plan.* The word *undoubtedly*, has the effect of a special

proposition, or preponent, signifying that the proposition which follows is unquestionably true. The words *in which*, between space rules, though placed before the subject, as in several preceding instances, belong to the predicate of the subordinate proposition.

PERIOD XI. and XII.

" It was not a natural turn for low intrigue; nor was it the treacherous amusement of double and triple negociation. No, Sir, it arose from a continued anxiety in the purest of all possible hearts, for the general welfare."

ANALYSIS.

It was not a natural turn for low intrigue;

Nor

Was it the treacherous amusement of a double and triple negociation.

No, Sir,

It arose from a continued anxiety in the purest of all possible hearts, for the general welfare.

OBSERVATION.

There is nothing in these three general propositions which needs explanation, only that the pronoun *it*, forming the subject of each, represents the ninth period, and the words *no*, *sir*, repeat the repugnance declared between the subjects and the predicates of the two preceding propositions.

PERIOD XIII.

" Unfortunately for us, the event has not been answerable to the design."

ANALYSIS.

Unfortunately for us,

The event has not been answerable to the design.

OBSERVATION.

The fragment, *unfortunately for us*, may be considered as a preponent, of which the proposition following is the principal, and the matter may be stated in the mode of double substitution; thus,

[*IT* is] unfortunate for us, [*THAT*]

The event has not been answerable to the design.

PERIOD XIV.

" After a rapid succeſsion of changes, we are reduced to that state which hardly any thing can mend."

ANALYSIS.

After

A rapid succeſsion of changes [has occurred]

We are reduced to that state,

Hardly any thing can mend which.

OBSERVATION.

Here are two general propositions; the first is elliptical, and a supplement is inserted between crotchets; the second comprehends a subordinate proposition in its predicate.

PERIOD XV.

"*Yet there is no extremity of distreſs which of itself ought to reduce a great nation to despair.*"

ANALYSIS.

No extremity of distreſs is **existent**
Which of itself ought to **reduce a great nation to despair.**

OBSERVATION.

Nothing is worthy of notice in this period, only that the word *existent*, as in several of the preceding periods, is substituted, in the analysis, for the word *there*.

PERIOD XVI.

"*It is not the disorder, but the physician; it is not a casual concurrence of calamitous circumstances, it is the pernicious hand of government which alone can make a whole people desperate.*"

ANALYSIS.

The disorder is not it [or **that particular thing**]
Which [particular thing] can alone **make a whole people desperate,**

But

The physician, [is it]

Which alone can make a whole people desperate;

A casual concurrence of circumstances is not it

Which alone can make a whole people desperate;

The pernicious hand of government is it

Which alone can make a whole people desperate.

OBSERVATION.

The matter of this period, as fully stated in the analysis, consists of eight special, composing four general propositions. The words *it*, and *which alone*; the first forming the predicate of each preceding, and the second forming the subject of each subsequent special proposition, are general signs of any particular subject to which the predicate of the incident proposition, concluding the period, may be applicable. Thus, in the second instance, they represent *the physician*, and, in the fourth instance, they represent *the pernicious hand of government*. Now, whenever such general signs are preceded by definite subjects, the signs may be discarded, and the definite subjects may be joined to the incident predicate; thus,

The disorder cannot make a whole people desperate;

But

The physician can make a whole people desperate.

A casual occurrence of circumstances cannot make a whole people desperate;

The pernicious hand of government can make a whole people desperate.

EXERCISE V.

INTRODUCTION TO LOCKE ON HUMAN UNDERSTANDING.

PERIOD I.

" Since it is the understanding that sets man above the rest of sensible beings, and gives him all the advantage, and dominion, which he has over them; it is certainly a subject, even for its nobleneſs, worth our labour to enquire into."

ANALYSIS.

Since,

The understanding is it

That sets man above the rest of sensible beings, and gives him all the advantages, and dominion,

|Which| he has over them;

It is, (certainly,) a subject, even for its nobleneſs, worth our labour to enquire into.

OBSERVATION.

This sentence, taken generally, forms a compleat obvious enthymeme. The relatives *it* and *that*,

one forming the predicate of the first proposition, and the other forming the subject of the second, present an instance exactly similar to that which occurred in the last period of the last exercise, and are both substitutes for the minor term, namely, *the understanding*. Now, these substitutes may be both discarded, as in the last period of the preceding exercise, and the matter may be stated, generally, in the form of an obvious enthymeme; thus,

Since THE UNDERSTANDING *sets man above the rest of sensible beings, and gives him all the advantage, and dominion, which he has over them;*
IT is certainly a subject, even for its nobleness, worth our labour to enquire into.

The word *certainly*, between parentheses, at the begining of the aſserting proposition, like *doubtleſs*, and some other adverbs we have noticed, has the effect of a special proposition, and may be stated as a preponent, signifying that the agreement of the subject and predicate is indisputable.

PERIOD II.

"The understanding, like the eye, whilst it makes us see, and perceive all other things, takes no notice of itself; and it requires art and pains to set it at a distance, and make it its own object."

ANALYSIS.

The understanding, like the eye, **takes no notice of itself,**

Whilst

It makes us see, and perceive all other things;

And

IT **requires art and pains** to set it at a distance, and make it its own object.

OBSERVATION.

There is nothing to remark in these three general propositions, only that the last is stated in the mode of single substitution.

PERIOD III.

" But whatever be the difficulties that lie in the way of this enquiry; whatever it be that keeps us so much in the dark to ourselves; sure I am, that all the light we can let in upon our own minds, all the acquaintance we can make with our own understanding, will not only be pleasant, but bring us great advantage, in directing our thoughts in the search of other things."

ANALYSIS.

But

Be the difficulties **whatever**

That **lie in the way of this enquiry;**
Be it **whatever**

That **keeps us so much in the dark to ourselves,**

I am **sure** *THAT*

All the light (we can let in upon our minds) all the acquaintance (we can make with our own understanding) will be not only pleasant, but bring us great advantage in directing our thoughts in the search of other things.

OBSERVATION.

In this sentence, the first four special, composing two general propositions, require no explanation. The rest of the period composes one general proposition, of which the pronoun *I* is the general subject. The relative *that*, in Italic capitals, represents all the subsequent part of the general predicate, in which two special propositions are distinguished between parentheses.

PERIOD IV.

" If, by this enquiry into the nature of the understanding, I can dicover the powers thereof; how far they reach; to what things they are in any degree proportionate; and where they fail us, I suppose it may be of use, to prevail with the busy mind of man to be more cautious in meddling with things exceeding its comprehension; to stop when it is at the utmost extent of its tether; and to sit down in quiet ignorance of those things which, upon examination, are found to be beyond the reach of its capacity."

ANALYSIS.

If I can discover, by this enquiry into the nature of the understanding, the powers thereof;

[If I can discover] how far

They reach;

[If I can discover] to what things
They are in any degree proportionate;
And
[If I can discover] where
They fail us to prevail with the busy mind of man to be more cautious in meddling with things exceeding its comprehension, to stop
When
It is at the utmost extent of its tether, and sit down in quiet ignorance of those things
Which are found, upon examination, to be beyond the reach of our capacities,
I suppose
It may be of use.

OBSERVATION.

This is a very long period, but the analysis is very distinct and obvious. The words *if I can discover*, though expreſsed but once in the text, are understood wherever they are inserted between crotchets, in the analysis. This period, in its general consideration, consists of two propositions; the first nine special propositions compose one general proposition taken hypothetically; the tenth and eleventh compose a general proposition taken positively.

PERIOD V.

" We shall not then, perhaps, be so forward, out of an affection of an universal knowledge, to raise questions, and perplex ourselves and others with disputes about things, to which our understandings are not suited; and of which we cannot frame in our minds any clear or distinct perceptions, or whereof (as it has perhaps too often happened) we have not any notions at all."

ANALYSIS.

Perhaps

We shall not be **then so forward, out of an affection of an universal knowledge, to raise questions,** and **perplex ourselves** and **others with disputes about things**

Our understandings are not **suited to which;**

And

We cannot **frame in our minds any clear or distinct perceptions of which,**

Or (as, perhaps,

It has too often happened)

We have not **any notions at all whereof.**

OBSERVATION.

This is one general compound, comprising five special propositions. In the analysis some violence has been exercised in the distortion of the style, but this is absolutely necessary, if we would exhibit the parts of each proposition in their proper places. The word, *perhaps*, has the effect of a special proposition, and signifies that the respective assertions admit of some doubt.

PERIOD VI.

"If we can find out how far the understanding can extend its views; how far it has faculties to attain certainty; and in what cases it can only judge and guess, we may learn to content ourselves with what is attainable in this state."

ANALYSIS.

If we can find out how far
The understanding can extend its views;
[If we can find out] how far
It has faculties to attain certainty;
And
[If we can find out] in what cases
It can only judge and guess,
We may learn to content ourselves with
What is attainable in this state.

These eight special, compose two general propositions. The words, *if we can find out*, though expressed but once in the text, are understood in each place where they are inserted between crotchets in the analysis. This sentence may be considered as an hypothetical enthymeme, and the matter may be distinguished generally; thus,

If WE can *find out how far the understanding can extend its views; how far it has faculties to attain certainty; and in what cases it can only judge and guess,*

WE may learn to content ourselves with what is attainable in this state.

Having now concluded the prosaic exercises, it may not here be improper to observe, that, in general, familiar reasoning, by men of ability, is conducted with much simplicity, that is, without complication; for, though it be elliptical, it presents very little difficulty. But the indirect and prolix periods of men of a contrary description, are sometimes obscure and troublesome. Upon the whole, it may be observed that, as brevity in *language*, and simplicity in *reasoning*, are two of the principal characteristics of excellence, so a redundance of words, and long crooked periods of complicated reasoning, are two of the greatest deformities. It is not in the matter so much as in the manner, that one writer or speaker differs from another. Of this I have been amply convinced in the tedious excursions through the province of literature to which I have been obliged to submit in the formation of this system, and could sufficiently exemplify, but it is not the object of my present design.

B. The preceding exercises are perfectly intelligible, but how will you proceed in the analysis of a poetical subject.

C. Poetry is also subject to analysis, but it is generally very elliptical, and does not frequently abound with acts of reasoning; it is however certain that upon the writers knowledge of analysis, a

good punctuation principally depends. In the analysis of verse, it is curious to observe how much the magical effect of poetry depends upon the mere arrangement of words, and how insipid the ideas will appear, though dreſsed out in the same language, when transposed into a different order.

EXERCISE VI.

YOUNG's LAST DAY, Book ii.

PERIOD I.

" Now the descending triumph stops its flight,
From earth full twice a planetary height."

ANALYSIS.

The descending triumph **now stops its flight full twice a planetary height from [the] earth.**

PERIOD II.

" There all the clouds condens'd, two columns raise
Distinct with orient veins and golden blaze."

ANALYSIS.

All the clouds condensed **raise two columns there, distinct with orient veins and golden blaze.**

PERIOD III.

" One fix'd on earth, and one in sea, and round
Its ample foot the swelling billows sound."

ANALYSIS.

One [is] fixed on [the] earth,
And
One [is fixed] in [the] sea,
And
The swelling billows sound round its ample foot.

PERIOD IV.

" These an immeasurable arch support,
The grand tribunal of this awful court."

ANALYSIS.

These [columns] support an immeasurable arch, the grand tribunal of this awful court.

PERIOD V.

" Sheets of bright azure, from the purest sky,
Stream from the chrystal arch, and round the columns fly."

ANALYSIS.

Sheets of bright azure from the purest sky stream from the chrystal arch, and fly round the columns.

PERIOD VI.

" Death, wrapt in chains, low at the basis lies,
And on the point of his own arrow dies."

ANALYSIS.

Death, wrapt in chains, lies low at the basis, and dies on the point of his own arrow.

PERIOD VII.

" Here high enthron'd th' eternal judge is plac'd,
With all the grandeur of his godhead grac'd;
Stars on his robes in beauteous order meet,
And the sun burns beneath his awful feet."

ANALYSIS.

The eternal judge is placed here high enthroned, graced with all the grandeur of his godhead;

Stars meet in beauteous order on his robes,

And

The ſun burns beneath his awful feet.

PERIOD VIII.

O thou! whose balance does the mountains weigh,
Whose will the wild tumultuous seas obey,
Whose breath can turn those watery worlds to flame,
That flame to tempest, and that tempest tame;
Earth's meanest son, all trembling, prostrate falls,
And on the boundleſs of thy goodneſs calls.

ANALYSIS.

O thou! whose balance does **weigh the mountains,**
The wild tumultuous seas **obey whose will,**
Whose breath can **turn those watery worlds to flame,**
[Whose breath can **turn**] **that flame to tempest,**
And
[Whose breath can] **tame that tempest,**
Earth's meanest son **falls, all trembling, prostrate,** and **calls**
on the boundless[ness] of thy goodness.

OBSERVATION.

Now, in these eight periods there is very little to remark; some of the ellipses are supplied between crotchets, in the analysis, and some violence is exercised on the style of the last period, to exhibit an orderly collocation of the propositional matter.

EXERCISE VII.

PARADISE LOST, Book V.

PERIOD I.

" These are thy glorious works, parent of good,
Almighty, thine this universal frame,
Thus wonderous fair; thyself how wonderous then!

Unspeakable, who sit'st above these heavens
To us invisible, or dimly seen
In these thy lowest works; yet these declare
Thy goodneſs beyond thought, and power divine."

ANALYSIS.

Almighty parent of good,
These are thy glorious works,
This universal frame thus wonderous fair [is] thine,
How [thou] thyself [art] wonderous
Then, unspeakable,
Who sitest above the heavens invisible to us, or dimly seen in these thy lowest works;
Yet
These declare thy goodneſs and power divine, beyond thought.

OBSERVATION.

There is nothing worthy of remark in the reduction of this sentence, only that the two vocative fragments are extraneous attributes applicable to the Deity.

PERIOD II.

" Speak ye who best can tell, ye sons of light,
Angels; for ye behold him, and with songs
And choral symphonies, day without night,
Circle his throne rejoicing; ye in heaven,
On earth join all ye creatures to extol
Him first, him last, him midst, and without end."

ANALYSIS.

[Ye who can tell best,
Angels, ye sons of light speak,

For

Ye behold him, and circle his throne, rejoicing with songs and choral symphonies, day without night;]

All ye creatures, ye in heaven, [and] on earth, join to extol him first, him last, him midst, and without end.

OBSERVATION.

In the preceding analysis, the matter which stands between crotchets will be found to compose an act of reasoning wherein the aſserting proposition is stated in the imperative mood, but the language may be transposed into a causal enthymeme; thus,

ANGELS, YE SONS OF LIGHT WHO BEST CAN TELL,
[should] speak,

Because YE *behold him, and circle his throne, rejoicing with songs and choral symphonies, day without night.*

PERIOD III.

" *Fairest of stars, last in the train of night,*
If better thou belong not to the dawn,
Sure pledge of day, that crown'st the smiling morn
With thy bright circlet, praise him in thy sphere,
While day arises, that sweet hour of prime."

ANALYSIS.

Fairest of stars, last in the train of night, (if thou [dost] not **better belong to the dawn**) sure pledge of day, (that **crownest the smiling morn with thy bright circlet**) **praise him in thy sphere** [during] **that sweet hour of prime,**

While

Day **arises.**

OBSERVATION.

In the preceding sentence, it may be observed, that a general subject is first assumed; then, in a parenthetical proposition, it is doubted whether *the star*, subjected, does not better belong to the morning; after this the words, *sure pledge of day*, are assumed as another general subject; in a second parenthesis, an attribute is ascribed to the second general subject, and this at last is joined, imperatively, to the general predicate.

B. Have you now finished the general exercises?

C. Yes.

B. Do you think that this praxis comprehends every combination in the language?

C. Yes; I do not think that there is a propositional or rational combination in the English tongue which I have not noticed; and of this I

am sure, that no passages will present more difficulty in the reduction than many of those I have chosen. It is very seldom, indeed, that periods so intricate and complicated as some of those I have quoted are to be found. There are, doubtless, many short fragments which occur in the brevity of familiar dialogue, but they are all substitutes for propositions, and the meaning may be expressed in three distinct propositional parts.

B. Previous to your attempt at analysis on poetry, you remarked, that a just punctuation depended much upon an analytical knowledge of language.

C. Most certainly; the use of the points is principally to shew the dependence of each affirmation; and one, who is unacquainted with propositional analysis, can insert the points, with no more certainty, than he, who is ignorant of what is called *time*, can determine where the bars should be placed in a piece of music. In the higher classes of poetry, indeed, the propositional matter is sometimes so dispersed, that it is not every one who can, at first sight, catch the meaning of the author. A youth, therefore, would, perhaps, understand many passages of Milton much more readily, if he were first to read them over disposed in the formal order of propositional arrangement.

B. But there are many compositors, who know not what is meant by the word proposition, that

will insert the points better than some learned authors.

C. That is very true; nor is it to be wondered at; for, though they be both ignorant of analysis, the compositor's profeſsion obliges him to adopt some general rules, when the author, perhaps, has acquired nothing from practical eſsay.

B. But do not some compositors, without any knowledge of analysis, insert the points with tolerable accuracy?

C. Yes; and so do some men write with tolerable accuracy, without knowing any thing of grammar, but they both, like blind men, wander in the dark, and, though they may make a fair progreſs in a smooth road, to which they have been accustomed, take them a little out of their common track and they are totally bewildered.

CHAPTER VIII.

OF SOPHISTRY, FALLACY, OR FALSE REASONING.

B. Does not the doctrine of sophistry or fallacy form a considerable part of old logic?

C. Yes; and this most forcibly evinces the inefficacy of the ancient system; for, had the true principles of reasoning been clearly understood, a great variety of sophisms must have appeared trifling and futile.

B. Do you not admit, then, that reasoning is subject to fallacy or inaccuracy?

C. Yes; but I deny, that there can be any great variety of sophisms, and, that any one of the ancient sophisms exhibit distinctly the parts wherein the fallacy or inaccuracy of reasoning consists.

B. Pray, then, point out the particular parts wherein reasoning may be false or defective.

C. The first, and principal place in reasoning, wherein fallacy or error can posibly exist, is in the major hypothesis.

B. Pray, how would you proceed to discover the truth or falsehood of any major hypothesis which may be offered?

C. I would first acquire a proper knowledge of the ideas which the subject and predicate are intended to convey; and, secondly, I would consider on what degree of human evidence the proposition was grounded.

B. Pray, into how many degrees do you divide human evidence?

C. Three; namely, *intuition*, from the latin word *intuitus*, *i. e.* having regarded, or looked

upon, which comprehends every determination that we are enabled to make immediately upon the evidence of our own senses; *demonstration*, from the latin word *demonstratio*, which signifies a clear proof deduced from an indisputable hypothesis, or acquired through the medium of experiment; and *testimony*, which is the evidence we derive from the report of others.

B. Suppose the hypothesis be grounded on that degree of evidence which you call *intuition*, how would you discover whether it were true or false?

C. There is no other way than to exhibit the ideas intended to be conveyed to the view of the mind, and to take its decision respecting their agreement, or repugnance.

B. What! will not a proposition, grounded on intuition, admit of proof?

C. No; this is the highest of all human evidence,* from this there is no appeal; hence the truth of an hypothesis, grounded on intuition, should be so clear and obvious, that every man, the moment he understands it, should aſsent to its truth without the least hesitation, otherwise it ought to be instantly abandoned; for, if the hypothesis be disputed, it would be silly in the extreme

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* See Eſsentials of Logic, page 198.

to erect on it a superstructure. Let us view, for example, an enthymeme depending on a major hypothesis, which, though not expreſsed, is understood, and must be admitted on *intuitive* evidence; as,

Aſserting Proposition. } TEN TIMES TEN are equal to a hundred;

Reasoning Proposition. } Because, THEY *comprehend all the parts of a hundred.*

Now, let us take the attribute composing the middle term, preceded by an universal sign, and join thereto the major term, when the major hypothesis will be formed thus:

THAT WHICH [or, WHATSOEVER] *comprehends all the parts of a hundred* is equal to a hundred.

This, then, is the major hypothesis, and it depends upon *intuition*; for, if a man does not aſsent to its truth immediately on understanding the meaning of the words, no reason, of equal force with the aſsertion, can be aſsigned to support it.

B. Pray give another example.

C. Yes.

Aſserting Proposition. } PETER cannot exist, and not exist, at the same time;

Reasoning Proposition. } Because, HE is a *being*.

Now, according to the preceding rule, the major hypothesis will be formed thus:

NO *being* can exist, and not exist, at the same time.

This, also, is of the first degree of human evidence, and admits of no proof equal to the conviction which the bare asertion conveys to the mind.

B. Suppose the hypothesis be grounded on demonstration, how would you then proceed?

C. If it were not a proposition admitted as an universal axiom, so as to be taken on testimony, I should carefully search after the reason or reasons on which it is grounded. The proposition, for example, which is understood as the major hypothesis, on which the following enthymeme depends, is demonstrable.

Aserting Proposition. } PETER should abstain from every kind of excess,

Reasoning Proposition. { If HE *wishes to enjoy the true pleasures of life,* and *to avoid some of the dreadful complaints enumerated in the catalogue of diseases.*

Now, let us take the attributes composing the middle term, preceded by an universal sign, and join thereto the attribute composing the major term, and thus exhibit the major hypothesis:

ALL THOSE WHO *wish to enjoy the true pleasures of life*, and *to avoid some of the dreadful complaints enumerated in the catalogue of diseases*, should **abstain from every kind of excels.**

This, then, is the major hypothesis. It is not grounded on *intuition*; we need not admit it on testimony, nor is it neceſsary to obtain demonstration by woful experience; on the contrary, verbal demonstration is fairly within our reach. Let us, then, convert the middle term, or subject of the major hypothesis, with its universal sign, into a minor term, and, having stated the major hypothesis as an aſserting proposition, shew reasons to demonstrate its truth.

Aſserting Proposition. { ALL THOSE WHO WISH TO ENJOY THE TRUE PLEASURES OF LIFE, and to AVOID SOME OF THE DREADFUL COMPLAINTS ENUMERATED IN THE CATALOGUE OF DISEASES, should **abstain from every kind of excels.**

FIRST.

For, THEY must have *frequently observed, that every enjoyment begins to lose its relish the moment they extend it beyond the limits prescribed by nature.*

SECOND.

If [for example] THEY *attempt to employ in active pursuits, any considerable portion of the time dedicated to rest,*

THEY **feel their vigilance begin to faulter.**

THIRD.

If [on the contrary] THEY *indulge in two much sleep,*

THEY become languid and feeble.

FOURTH.

If THEY *elevate their spirits above their natural level,*

THEY experience a degree of temporary madness, and can, perhaps, no longer confine their words and actions within the bounds of prudential restraint.

FIFTH.

If [tempted by delicacies] THEY *indulge too freely in the pleasures of the table,*

THEY will perceive that nature revolts at the superabundant incumbrance.

SIXTH.

And *so with a similar abuse of every other enjoyment.*

SEVENTH.

Moreover,

THEY must *know that these abuses are so many attacks upon the constitution;* and are *the cause of the greatest part of the numerous disorders incident to mankind.*

EIGHTH.

THEY may observe, indeed, many instances wherein a robust constitution has sustained great abuses of this kind with little or no apparent injury.

NINTH.

But

How *many more* may THEY *see hurried into the grave by intemperance, even in the prime of life;* or (what, perhaps, is still worse) *become a prey to chronic disease, which gradually saps the foundation of the constitution,* and *thus pass into the vale of years, pining under the infirmities of a weak, feeble, and emaciated constitution?*

Now, eight of the nine preceding periods are so many reasons or middle terms, which, both individually, and collectively, tend to prove the truth of the first hypothesis, converted into an aſserting proposition. The first is a reason offered to prove the aſsertion in the order of a causal enthymeme. The second period is an hypothetical enthymeme of itself, and is also a reason shewing *why that species of exceſs should be avoided.* Of the same description are the third, fourth, and fifth periods. The sixth period is also a reason, as will appear by the following statement:

> [THEY must *know that*] *a similar abuse of every other enjoyment is so* [*i. e.* attended with the like consequences;]
>
> And,
>
> Therefore, ALL THOSE WHO WISH TO ENJOY THE TRUE PLEASURES OF LIFE, &c. should abstain from every kind of exceſs.

The seventh period is also a reason, from which the preceding conclusion will follow in the same manner as above.

The eighth period is not a reason of itself independent of the ninth, but admits that *there may be some instances wherein these abuses may not be apparently so injurious*, in order to shew, more forcibly, in the reasoning interrogatories composing the ninth period, how little chance there is that many

constitutions will stand the shock of such abuses; and thus contributes with the rest to prove *that*,

THOSE WHO WISH TO ENJOY THE TRUE PLEASURES OF LIFE, and AVOID SOME OF THE DREADFUL COMPLAINTS ENUMERATED IN THE CATALOGUE OF DISEASES, should abstain from every kind of excess.

Thus, a train of reasoning, to prove the truth or fallacy of an hypothesis, is sometimes continued to a very great length.* Some of the reasons will be *perfect* and *direct*, others *elliptical* and *oblique*; but they may be all rectified, and the ellipses supplied according to the preceding rules. Since, then, this is the mode in which we reason, it surely will be admitted, that one skilled in the analysis of language will be able to exercise this faculty with more method, certainty, and effect, than one who reasons by rote. It would, moreover, be much easier to convince a man who is able to distinguish the points on which the reasoning depends, than one who views an argument as an undigested mass.

B. How would you proceed to examine an hypothesis depending wholly on human testimony?

C. So numerous and multifarious are the propositions which must be taken on human testimony,

* See the quotation from Dr. Parr, page 173.

that to offer any general rules to direct the judgment in this respect would tend more to embarrass, than to illustrate the subject. Every proposition concerning what happened before our birth and in our infancy, as well as the greatest part of all the information which comes to our knowledge after we arrive at the years of maturity, has no other ground of support; and yet is entitled to our entire credence. Few of us have had an opportunity of making experiments in chemistry, natural philosophy, astronomy, electricity, &c. and what we admit concerning such experiments must depend entirely on testimony. Most of our knowledge respecting the extent, situation, and even existence of places abroad, depends on testimony. Nay, a major part of the occurrences in our own families must be taken on the report of others. I am of opinion, moreover, that the rules laid down in old logic, to direct the judgment in matters of testimony, cannot be well understood by those who have occasion for them; and that they are of little use to such as are able to judge for themselves.

B. Which is the next point in reasoning wherein fallacy or inaccuracy can occur?

C. As the major hypothesis exhibits an agreement, or repugnance to be admitted, or taken for granted, between the *middle* and *major* terms, so the minor hypothesis, or reasoning proposition,

exhibits an agreement, or repugnance to be admitted or granted, between the *minor* and *middle* terms; as,

EVERY *man* must die.

Now, this is the major hypothesis, and here we admit, as is demonstrated by common experience, that the middle term *man*, and the major term *die*, are congenial. In the next proceſs we admit that,

PETER is *a man*.

This, then, is the minor hypothesis, and thus we admit an agreement between *Peter*, the *minor* term, and *man*, the *middle* term. Now, this is the second and last place wherein error or fallacy can poſsibly occur in reasoning. We then say,

Therefore, PETER must die.

Here, we behold the aſserting proposition, and, in this proceſs, if the words be accurately repeated or transcribed, there can be no fallacy or error.

These are the only two points in reasoning wherein error or fallacy can poſsibly occur; namely, first, in the admiſsion of an agreement, or a repugnance between the *middle* and *major* terms, called the major hypothesis; and, secondly, in the admiſsion of an agreement, or a repugnance be-

tween the *minor* and *middle* terms, called the minor hypothesis. No where else can fallacy be found; for, though the meaning of the words composing either or all of the three terms be equivocal, yet, if they be taken as representatives of the same ideas in each of the three propositions, there can be no error in that respect.

Thus, by an acquaintance with propositional analysis, we can easily perceive, and instantly detect fallacy or error in its very source; for it can never exist but in the admiſsion of a fallacious agreement or repugnance between the *middle* and *major* terms, between the *minor* and *middle* terms, or in both these points. These inaccuracies I shall endeavour to exemplify; and, first, let us view a defective major hypothesis.

When an attempt was made, a few years since, to repeal some of the absurdities which had crept into our spiritual code, in the days of superstition, a learned divine is reported to have said, in the House of Lords, that, though obsolete,

Aſserting Proposition. } THESE LAWS were venerable;

Reasoning Proposition. } Because, THEY *poſseſsed the marks of antiquity.*

Now, here the major hypothesis, though not expreſsed, is defective; for it is taken for granted,

that the attributes composing the *middle* and *major* terms are universal asociates, or that,

WHATSOEVER [or EVERY THING, WHICH]
poseses the marks of antiquity, is venerable.

This, however, is not true, for there are many things to which the first attribute is applicable, that cannot be declared agreeable with the second. For example, an unnatural practice, mentioned by Horace, *poseses the marks of antiquity*, but is by no means *venerable*. The practice of making human sacrifices among the Druids, *poseses the marks of antiquity*, but it is not a *venerable* practice.* Thus, then, the major hypothesis is fallacious or defective, for one single exception in the agreement or repugnance between the two terms vitiates the hypothesis.† The minor hypothesis, however, or agreement between the *minor* and *middle terms*, that *the laws alluded to bear the marks of antiquity*, is, nevertheles, good and indisputable.

B. Pray, give an example wherein the minor hypothesis is defective or fallacious.

C. Yes.

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* See other examples, page 177, of this work, and page 119, Esentials of Logic.

† For the reason of this see Esentials of Logic, pages 87, and 88.

"EVERY THING THAT IS NEW OR UNCOMMON raises a pleasure in the imagination;

Because IT *fills the soul with an agreeable surprise, gratifies its curiosity, and gives it an idea of which it was not before poſseſsed.*"

No. 412 of the Spectator.

Now, here, the major hypothesis, though not expreſsed, is good, for it is true, that

WHATSOEVER *fills the soul with an agreeable surprise, gratifies its curiosity, and gives it an idea of which it was not before poſseſsed,* raises a pleasure in the imagination.

But the minor hypothesis is false, for it is not true, that

EVERY THING NEW OR UNCOMMON *fills the soul with an agreeable surprise, gratifies its curiosity, and gives it an idea of which it was not before poſseſsed.*

Since it may be a *thing new or uncommon* to be in a town taken by storm, and behold one's dearest friends put to the sword; but, surely, this would neither *fill the soul with an agreeable surprise*, nor *gratify its curiosity*, though it may *give it an idea of which it was not before poſseſsed.*

B. Pray, give an example wherein both the major and minor hypotheses are defective.

C. Yes.

["*A large work is difficult, because it is large, even though all its parts might, singly, be performed with facility;*] *where there are many things to be done, each must be allowed its share of time and labour, in the proportion only which it bears to the whole; nor can it be expected, that the stones which form the dome of a temple, should be squared and polished like the diamond of a ring.*"

Preface to Johnson's Dictionary.

In this period, all that materially regards the reasoning stands between crotchets, and the major hypothesis may be exhibited thus,

A WORK [ANY WORK, or EVERY WORK] WHICH is *large*, is difficult, even though all its parts might, singly, be performed with facility.

This hypothesis appears to me defective; for a work, however large, cannot, I think, be *difficult*, if "*all its parts might, singly, be performed with facility*," though it might be laborious, for *facility* is the opposite to *difficulty*; and even *that labour is to be only in proportion to the number of parts.*

Now, mark the minor hypothesis;

A LARGE WORK is *large*;

This defect, I think, is sufficiently glaring. The minor and middle terms are represented by the same word, namely, *large*; it is the same as

saying, *that, which is large, is large*; and the conclusion,

Therefore, A LARGE WORK is difficult, even though all its parts might, singly, be performed with facility,

must be subject to the defects of the two conditions.

This trifling inaccuracy of Doctor Johnson, however, would, certainly, on any other occasion, be unworthy of notice, as his reasoning in general is, perhaps, the most accurate, extensive, and elegant, of any other writer in the English language.

On a critical examination of the preceding example, it may be remarked, that the words, *even though all its parts might, singly, be performed with facility*, though taken as a part of the major term, might, with as much propriety, form a part of the middle term; thus,

A WORK WHICH is *large, even though all its parts might, singly, be performed with facility*, is difficult;

A LARGE WORK is *large, even though all its parts might, singly, be performed with facility*;

Therefore, a LARGE WORK is difficult.

Or they may form a part of the minor term; thus,

A WORK WHICH is *large*, is **difficult**;

A LARGE WORK, EVEN THOUGH ALL ITS PARTS MIGHT, SINGLY, BE PERFORMED WITH FACILITY, is *large*;

Therefore, A LARGE WORK, EVEN THOUGH ALL ITS PARTS MIGHT, SINGLY, BE PERFORMED WITH FACILITY, is **difficult.**

Or, the words alluded to may be entirely excluded from the reasoning, and taken after the aſserting proposition; thus,

A WORK WHICH is *large* is **difficult**;

A LARGE WORK is *large*;

Therefore, A LARGE WORK is **difficult**,

Even though all its parts might, singly, be performed with facility.

Thus, these words, which are employed to explain *what kind of a large* work is meant, help to viiiate the major hypothesis.

In old logic, sophisms are ranged under a great variety of general heads, distinguished by Greek and Latin names; now, it is evident, that there can be no other fallacy in reasoning than a defective major hypothesis, a defective minor hypothesis, or a defect in both. Hence, I think, that the authors of the old system never entered sufficiently into the analysis to discover the two principal sources of fallacy, and were consequently ignorant of the true principles of reasoning.

CHAPTER IX.

GENERAL HINTS ON THE MODE OF TEACHING.

THE pupil should, first, learn to answer the questions, and to write the examples contained in the first and second pages. He may then begin to eſsay, by way of exercise, on the six examples of simple congenial propositions which follow, and some other of a similar description, which the tutor may select. These should be written for the pupil; not in the manner they are printed, where each proposition stands in a distinct line, but two, three, or more, should follow one another in the same line. Now, it should be the pupil's first buſineſs to write each proposition in a line by itself, as they are printed; and then distinguish the subjects, copulas, and predicates. It may be done thus: let each subject stand as written, and each copula may be distinguished by a single score drawn underneath it with a pen, and each predicate by a double score. He should next learn to

answer the question which follows the six examples; and then exercise, in the same manner, on the six examples of repugnant propositions. Thus he should continue to answer the intermediate questions, and exemplify till he is become familiarly acquainted with the contents of the first chapter.

Where the copula is included in the predicate, the pupil may make a *caret* between the subject and the predicate. A modal proposition may be distinguished by drawing a line above the copula, instead of underneath it, as in a pure proposition. When the subject or predicate is compound, he may be taught to distinguish them by writing over the first component subject or predicate, the figure 1, over the second 2, the third 3, &c. but a very exact distinction in this respect is not of the most essential importance. To distinguish from each other, the two propositions composing an example of the mode of double substitution, he may score the predicate of the preponent above the words, and mark the principal underneath, as in the common mode of expression. The substitutes, in all the modes of substitution, may be distinguished by three scores underneath.

There should then be given the pupil, in writing, short lessons from the propositional exercises, which he should reduce, first, into special propositions, distinguishing those which are called incident, from

those called subordinate, stating the particles, or connecting words, in a line by themselves. And, secondly, disregarding the special distinctions, he should form the lesson into general propositions, where the generality can easily be distinguished.

The pupil should be employed in these exercises, without ever noticing the dependence which one proposition has upon another in a rational sense, until he is well acquainted with the terms which distinguish each component part, and until he is become so familiar with the subject that he can readily transpose the parts of a proposition into methodical order, however the members may be disposed by the style of the writer.

When the pupil is become thus familiar with the subject, and not till then, he should drop the propositional distinctions, and be taught to distinguish the major, middle, and minor terms of a causal enthymeme. The major term, as I have before observed, may be distinguished by a double score underneath, the middle term by a single score underneath, the minor by a single score over it, and the universal sign, preceding the major hypothesis, by a double score over it. The signs of reasoning and copulas may stand without any mark whatever. After this the pupil should be taught, in the same manner, to distinguish the three terms of the regular, of the obvious, and of the hypothetical enthymemes, and to subjoin the major hypothesis.

When the pupil has eſsayed on all the examples of chapter 3, can give examples of the four forms of familiar reasoning, understands the two conditions, on the truth of which the reasoning depends, and can supply the major hypothesis himself, where it is omitted, he may begin to eſsay on short leſsons chosen from the Rambler, or any other well written book, wherein two or three complete acts of reasoning occur. These leſsons, he should first reduce into special propositions, then into general propositions, and, finally, endeavour to discover what dependence one proposition has upon another in a rational sense. This he may do by stating each general proposition separately, and asking the question *why*? as exemplified in pages 98, 99*; and wherever he finds a proposition in the leſson aſsigned as a reason *why* an aſsertion is made, there is an act of reasoning, that is, an enthymeme consisting of an aſserting and reasoning proposition, and the major hypothesis may be supplied according to the rule page 90.

The pupil should be taught to transpose every act of reasoning into the four familiar forms, to supply the major hypothesis at the conclusion, and, to exhibit each example in the order of a syllogism. When the pupil has made himself well acquainted

* See Eſsentials of Logic, page 122.

with simple complete reasoning, so that he be tolerably expert in the propositional and rational analysis, then he should begin to study indirect reasoning; and, after having been introduced according to the rules, chapter 4, exercise on the examples. Should further exemplification be thought necessary, the tutor may find an abundance of examples in almost every printed page.

The next step in the study is elliptical reasoning, on which the pupil should exercise according to the rules given chapter 5. He should learn to answer all the questions respecting indirect and elliptical reasoning, and illustrate by examples. After this he may exercise on the familiar, and two artificial compounds, so as to be able to exemplify them, and then he may proceed to the general exercises beginning page 159. These should be given him in writing, first to be distinguished into special propositions stated in a single line each, without regarding the general distinctions; then he should form them as general propositions, without regarding the special distinctions; and, finally, without regarding the propositional distinctions, he should extract each act of reasoning and transpose it, first, into the four familiar forms, supplying the major hypothesis at the conclusion, and, finally, into the order of a syllogism.

After the pupil has rendered himself familiar with the general exercises, he will find no difficulty in analyzing any subject which may be offered him; and a little oral practice will enable him to supply the major hypothesis, and examine the accuracy of oratorical reasoning as fast as any speaker can deliver himself. One who takes notes, with an intent to reply to a speech of considerable length, will find a greater advantage from this study than can posibly be conceived by he who is unacquainted with it: and, I am of opinion, that a youth, of but tolerable intelligence, will find les difficulty in making himself master of this branch of learning, than in acquiring a popular acquaintance with the four first rules of arithmetic.

THE END.

ERRATUM.

Page 48, lines 5 and 6; for *the two general compound subjects*, read, *the two component subjects.*

MVSEVM
BRITAN
NICVM